WESTSIDE SUBWAY EXTENSION PROJECT

Existing Plus Project Traffic Impact Analysis Report

Metro

August 2011

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1.0 INTRODUCTION

This report provides updated information from what was presented in the Draft EIS/EIR. The focus of this report is on the identification and analysis of potential effects of the Locally Preferred Alternative (LPA) on the existing transportation network. The analysis results have not changed from the Draft EIS/EIR in that no locations will be adversely affected by the LPA in terms of identified criteria. Information in this report is included in the *Westside Subway Extension Transportation Impacts Technical Report* (August, 2010), including *Addenda* (July, 2011).

For this scenario, 126 study intersections within 1 mile of potential station locations were analyzed, as it was reasonable to assume that vehicular traffic at study intersections farther than 1 mile from a station location will be nominally affected by the LPA.

2.0 EXISTING NO BUILD CONDITIONS

This report has been updated from the Draft EIS/EIR to focus on the analysis of the effects of the LPA on traffic conditions. The analysis results have not changed from the Draft EIS/EIR. The analysis of all the Build and TSM Alternatives in the Draft EIS/EIR is incorporated here by reference. Information in this section is summarized from the *Westside Subway Extension Traffic Analysis Impact Report*, where additional detailed information is provided. Existing No Build traffic conditions without the Westside Subway Extension Project are detailed in the *Traffic Analysis Impact Report*. During the Draft EIS/EIR phase of the Project, 192 intersections were identified for analysis within the study area. The 192 intersections were relevant to Alternative 5, which included the West Hollywood and Santa Monica extensions as part of the alignment. In this report, level-of-service (LOS) analysis is conducted only for the 126 intersections included in the modified LPA study area (intersections within 1 mile of potential station locations). The LPA study relates to Alternative 2, which is the extension of subway service from the current terminus at the existing Wilshire/Western Station to the proposed Westwood/VA Hospital Station. This section highlights the data collection effort, LOS methodology, and LOS analysis contained in the *Traffic Analysis Impact Report*.

2.1 Data Collection

Detailed AM and PM peak-period intersection turning-movement counts were conducted in April 2009, May 2009, and January 2010 to represent existing traffic volumes on a typical weekday throughout the study area. For specific intersections, fall 2008 counts were obtained from the Wilshire Bus Rapid Transit (BRT) EIR. Counts were taken during typical weekday peak hours from 7:00 to 9:00 AM and 4:00 to 6:00 PM. Traffic counts used in the existing conditions analysis are included in Appendix A of the *Traffic Analysis Impact Report*. Each analyzed location was field checked to verify lane configurations and signal phasing. Signal timing plans for each study intersection were received from affected jurisdictions.

In addition to the collection of traffic data, pedestrian and bicycle activity was observed at study intersections in close proximity to potential station locations. Peak period pedestrian and bicycle volumes were recorded at study intersections adjacent to and up to approximately one-quarter mile walking distance from a potential station location. Appendix A of the *Traffic Analysis Impact Report* contains pedestrian and bicycle counts taken at the 65 study intersections that are within one-quarter mile of potential station locations.

2.2 Traffic Volumes

The existing traffic volumes for the analyzed peak hours are shown in Appendix A of the *Traffic Analysis Impact Report*.

2.3 Level-of-Service Methodology

The commonly accepted operational analysis methodology from *the Highway Capacity Manual* (HCM) (Transportation Research Board, 2000) was used to estimate delay and corresponding LOS at each study intersection. The operations analysis methodology rates intersection conditions based on the average delay, measured in seconds, experienced by drivers.

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from LOS A (free-flow conditions) to LOS F (congested conditions), with LOS E representing the theoretical maximum capacity of a link or intersection before gridlock occurs. Table 2-1 provides LOS definitions for signalized intersections using the HCM methodology. Weekday AM and PM peak hours were selected for analysis because they represent the most critical periods of traffic congestion in the study area, compared to other periods such as weekday or weekend midday. The LOS definitions and ranges of delay shown in Table 2-1 represent average conditions for all vehicles at an intersection across an entire hour. Delays longer than the average condition are experienced by motorists on certain movements and/or during peak times within the peak hour.

Table 2-1: Level-of-service Definitions for Signalized Intersections

Level-of-Service	Control Delay (seconds/vehicle)	Interpretation*
A	≤10.0	This level-of-service occurs when 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 density.
B	>10.0 and ≤20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	>20.0 and ≤35.0	These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	>35.0 and ≤55.0	At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	>55.0 and ≤80.0	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 volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	>80.0	This level, considered unacceptable by most drivers, often occurs with oversaturation; that is, when arrivals flow rates exceed the capacity of the intersection. It may also occur at high volume-to-capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.
* Level-of-service interpretation was derived from *Highway Capacity Manual 1994*, Transportation Research Board, 1994.

Generally, the minimum acceptable LOS for any intersection in an urbanized area is LOS D. The affected jurisdictions for the study area for the Westside Subway Extension Project corridor all

consider LOS D the minimum acceptable LOS. Therefore, LOS D will serve as the minimum acceptable standard for the Project.

2.4 Level-of-Service Analysis Tool

The Synchro 6.0 software suite was used to develop study area roadway and intersection network for traffic analysis in the Draft EIS/EIR. The Synchro model was constructed by drawing the roadway network using aerial photography as a background. The number of lanes and the location of lane additions and drops were confirmed by field observations. Additional detail was incorporated into the Synchro network (posted speed limits, grades, etc.) to better reflect observed field conditions. Traffic signal-related information such as phasing and initial timings (minimum green, maximum green, distance or gap between vehicles, etc.) for the signalized intersections was obtained from the affected agencies or during field visits to the site. Additional detail such as turn pocket lengths, saturation flow, and intersection spacing was coded based on field measurements. Once the model was developed, AM and PM peak-hour intersection turning-movement counts and pedestrian volumes were added to the 192 study locations representing the study area analyzed in the Draft EIS/EIR.

2.5 Level-of-Service Analysis

For the Existing plus Project intersection LOS and impact analysis, 126 of the 192 study locations were selected for analysis. The delay and delay-based LOS at the 126 study locations represent existing conditions for the modified LPA study area.

The results of the analysis of existing weekday morning and afternoon peak-hour conditions at the 126 intersections included in the modified LPA study area are summarized in Appendix A.

3.0 EXISTING PLUS PROJECT CONDITIONS

This section describes the methodology used to forecast Existing plus Project traffic volumes and details expected intersection level-of-service resulting from the addition of the LPA to the existing street system.

3.1 Methodology

3.1.1 Travel Demand Forecast Data

A travel demand model for the Project was developed using a combination of the updated Metro Regional Travel Demand Model and the VISUM modeling software. The Metro Regional Travel Demand Model was used to forecast regional travel patterns, and the VISUM modeling software was used to refine regional travel patterns to match observed traffic counts.

The Metro Regional Travel Demand Model receives its demographic inputs from the Southern California Association of Governments Regional Travel Demand Model and produces regional travel flows based on a four-step process. To improve on the level of detail in the forecasting process, the VISUM modeling software was used to extract a sub-area of the regional model and enhance its level of detail. VISUM has the same standard features as traditional travel demand models as well as other features that allow the model to capture the local-scale distributional effects of roadway improvements and land use changes more accurately. VISUM is capable of refining regional travel patterns to match observed traffic volumes through a matrix estimation process and uses an assignment algorithm that assigns vehicle trips to the roadway network based on roadway link and turning movement capacities. Thus, the regional model was used as a macro-level planning tool for trip

generation, trip distribution, and mode split, while the VISUM model was used for travel pattern refinement and detailed trip assignment in the study area.

A sub-area validation was performed on the base year VISUM model to ensure the model produced traffic forecasts that reasonably resembled observed traffic counts obtained in the project study area. The model was calibrated by adjusting parameters such as roadway speeds and capacities until the model was validated by applying a set of criteria that compare model volumes to actual counts. The base year VISUM model was then considered to be valid to existing traffic counts.

Existing plus Project traffic volume forecasts were developed with the use of the Base Year (2010) Metro Regional Travel Demand Model. The Base Year Metro Regional Travel Demand Model was run without (No Build) and with (plus Project) the LPA to produce two sets of origin-destination trip tables. The difference between the two origin-destination trip tables (plus Project minus No Build) was then added to the validated base year trip table and assigned to the VISUM roadway network. The resulting outputs were Existing plus Project turning movement forecasts.

3.1.2 Incorporation of Pedestrian Volumes

The LPA will result in additional pedestrian activity at intersections immediately adjacent to and within walking distance of (typically one-quarter mile) proposed station locations. Mode of access data from the Metro Regional Travel Demand Model along with future station site plans were used to determine the increase in pedestrians expected at each leg of an intersection adjacent to a proposed station location. The pedestrian volumes were added to the Synchro network to account for additional vehicle delay at unprotected left and right turns as a result of increased pedestrian activity. Vehicle delay will also be affected by an increased number of pedestrian calls, which will increase time allotted to walk phases and associated green phases.

3.2 Traffic Forecasts

Using the inputs described previously, the weekday peak hour (AM and PM) Existing plus Project forecasts for the LPA were developed at the 126 study intersections. Study intersection turning movement volumes are contained in Appendix B. Intersections not applicable (outside the modified LPA study area) to the Project scenario show "NA" in place of turning movement volumes.

These traffic forecasts assume a portal option at the Wilshire/Rodeo Station that would not result in any loss of roadway capacity, which is consistent with the traffic impact analysis for Year 2035 contained in the Draft EIS/EIR. In the Final EIS/EIR, a portal option is under consideration at the Wilshire/Rodeo Station that would encroach into Beverly Drive north of Wilshire Boulevard and result in a reduction of lane capacity and removal of on-street parking. The traffic impact analysis for the LPA that includes this portal option can be found in the *Wilshire/Rodeo Station Bank of America Portal Traffic Impact Analysis Report* (August 2011).

3.3 Level-of-Service Analysis

Projected morning and afternoon peak-period delay and corresponding LOS for the 126 LPA study intersection are contained in Appendix A. Detailed LOS calculations per intersection by peak-hour scenario are provided in Appendix C.

Under Existing plus Project conditions, 89 of the 126 analyzed intersections (71 percent) will operate at an acceptable LOS D or better in the morning peak hour. The remaining 37 intersections (29 percent) will operate at LOS E or F (deficient LOS) during the AM peak hour. Of the 126 analyzed intersections, 82 (65 percent) will operate at an acceptable LOS D or better in the PM peak hour. The

remaining 44 intersections (35 percent) will operate at LOS E or F (deficient LOS) during the PM peak hour. The LOS results by peak hour are illustrated graphically in Figure 3-1.

Figure 3-1: Existing Plus Project Level-of-Service

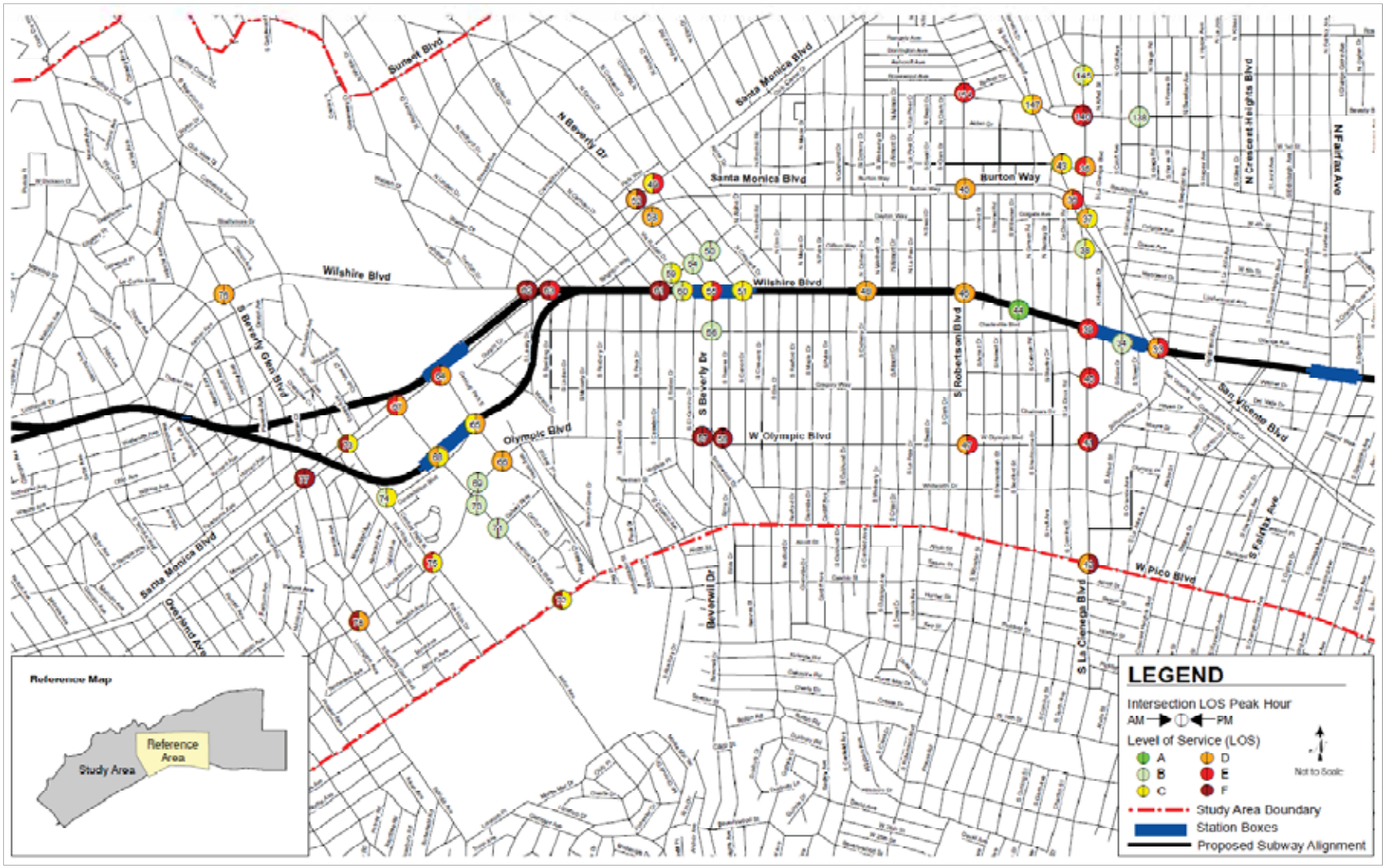
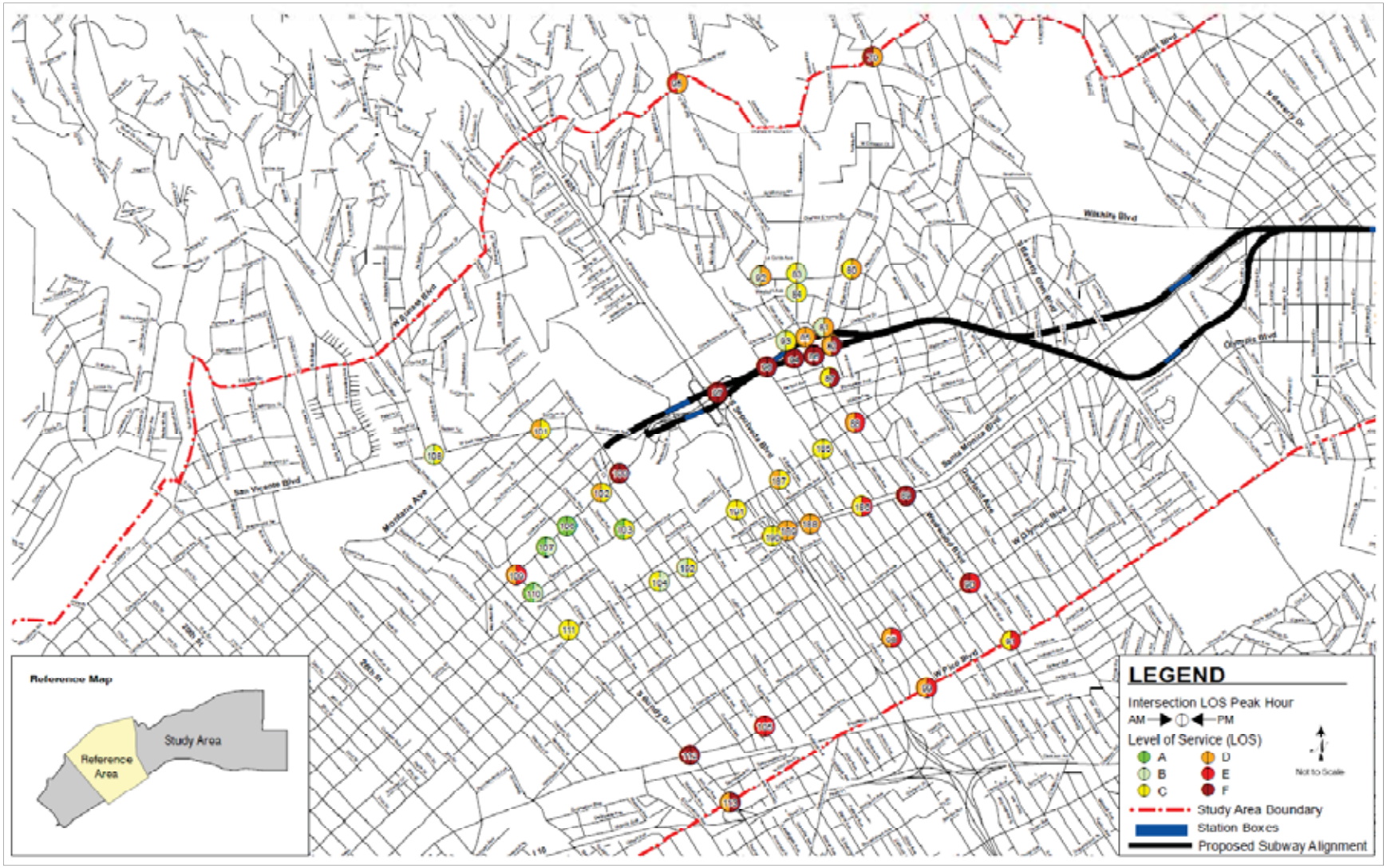


Figure 3-1: Existing Plus Project Level-of-Service (continued)



The LPA will result in a modest, but measurable, improvement in traffic operating conditions compared to existing conditions. In the AM peak hour, nine intersections will improve by one level-of-service, and in the PM peak hour 13 intersections will improve by one level-of-service. Table 3-1 summarizes the improvement in level-of-service generated by the LPA for each peak hour.

Table 3-1: LPA Intersection Level-of-Service Improvement Compared to Existing Conditions

Level-of-Service Improvement	Number of Intersections with LOS Improvement	
	AM Peak Hour	PM Peak Hour
F to E	1	2
E to D	6	4
D to C	1	3
C to B	0	4
B to A	1	0
Total	9	13

4.0 IMPACT ANALYSIS

The projected Existing plus Project levels-of-service were analyzed to determine the operating conditions of the 126 study intersections with the LPA in place. These levels-of-service were compared to the existing intersection levels-of-service to identify the potential impacts of the LPA on the surrounding street system. This section discusses the impact criteria used to assess the potential for significant/adverse impacts, provides an impact analysis, and summarizes the results.

4.1 Methodology and Impact Criteria

For the traffic impact analysis, the evaluation of significance under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) is defined by comparing the Existing plus Project scenario to the Existing No Build scenario. The net change in delay at study intersections is compared to thresholds of significance for determination of impacts. The criteria used to measure a significant impact are defined in Table 4-1.

Table 4-1: Westside Subway Extension Traffic Impact Criteria

Definition	Criteria
The intersection LOS analysis assumes that an intersection would be significantly impacted (CEQA)/adversely affected (NEPA) by traffic volume changes if a project alternative causes an increase in average vehicle delay according to the following thresholds:	Final LOS C—A significant/adverse impact has occurred if the delay is increased by 10 or more seconds
	Final LOS D—A significant/adverse impact has occurred if the delay is increased by 7.5 or more seconds
	Final LOS E/F— A significant/adverse impact has occurred if the delay is increased by 5 or more seconds

4.2 Impact Determination

Using the impact criteria shown in Table 4-1, the traffic impact analysis found that with the LPA no study intersection will exceed the threshold for a significant/adverse traffic impact as compared to

the Existing No Build scenario. Therefore, the LPA will not result in significant/adverse traffic impacts.

Projected morning and afternoon peak-period delay, corresponding LOS, and impact determination for the LPA at the 126 study intersections are provided in Appendix B.

APPENDICES

Appendix A EXISTING INTERSECTION LOS

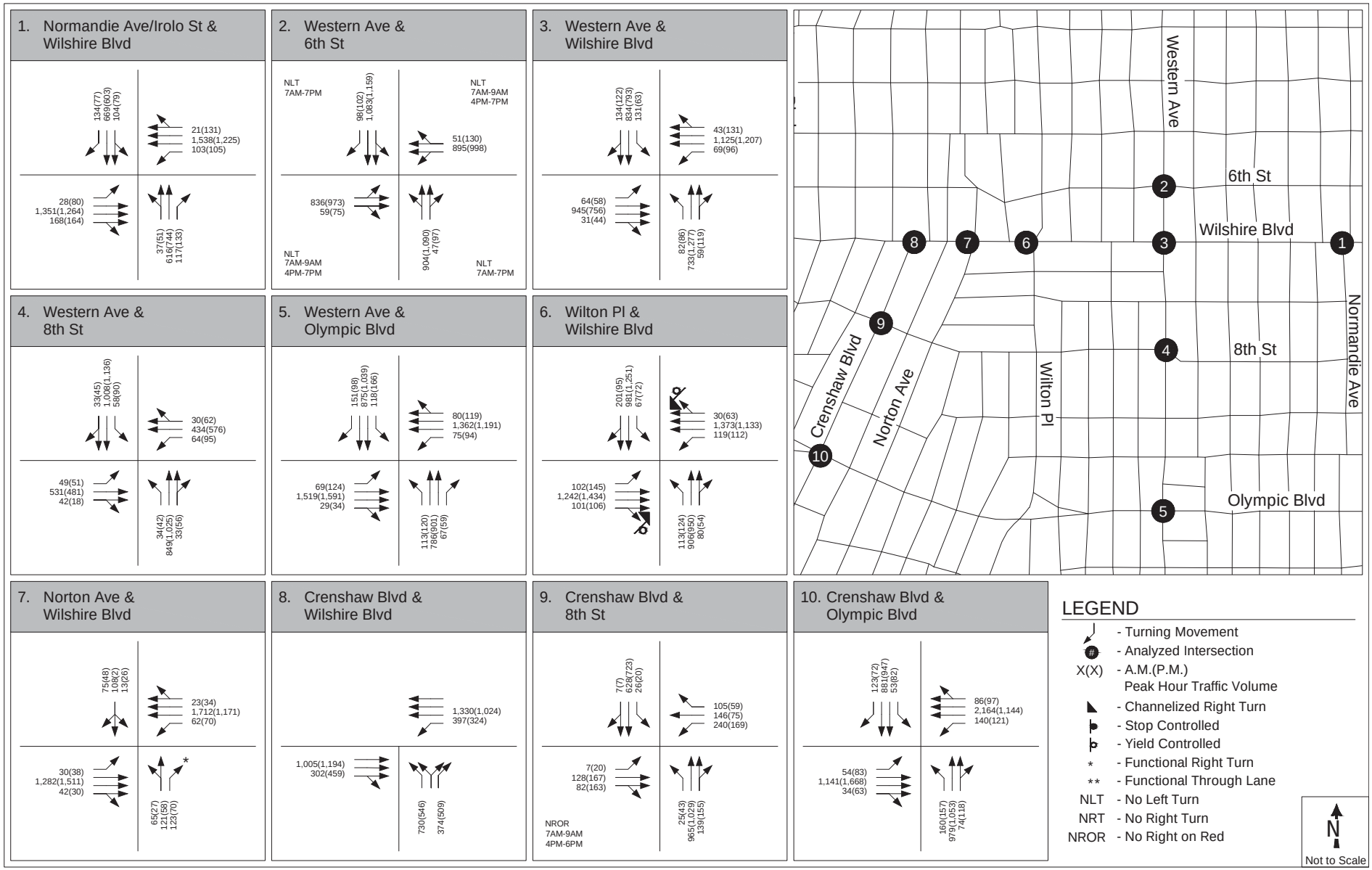
Intersection	North/South Street	East/West Street	Jurisdiction	Existing Level of Service				Existing plus Project Level of Service and Impact Determination							
				AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
				Delay (sec)	LOS per Delay	Delay (sec)	LOS per Delay	Delay (sec)	LOS per Delay	Change in Delay	Impact	Delay (sec)	LOS per Delay	Change in Delay	Impact
1	Normandie Ave/Irolo St	Wilshire Blvd	LA	38.8	D	31.6	C	38.8	D	0.0	NO	31.2	C	-0.4	NO
2	Western Ave	6th St	LA	19.4	B	23.9	C	20.1	C	0.7	NO	24.0	C	0.1	NO
3	Western Ave	Wilshire Blvd	LA	34.0	C	87.8	F	34.7	C	0.7	NO	89.2	F	1.4	NO
4	Western Ave	8th St	LA	18.2	B	20.5	C	17.8	B	-0.4	NO	21.8	C	1.3	NO
5	Western Ave	Olympic Blvd	LA	43.8	D	51.0	D	40.6	D	-3.2	NO	45.0	D	-6.0	NO
6	Wilton Pl	Wilshire Blvd	LA	50.1	D	57.2	E	44.3	D	-5.8	NO	53.6	D	-3.6	NO
7	Norton Ave	Wilshire Blvd	LA	16.7	B	9.5	A	16.5	B	-0.2	NO	6.7	A	-2.8	NO
8	Crenshaw Blvd	Wilshire Blvd	LA	39.8	D	32.8	C	46.9	D	7.1	NO	40.1	D	7.3	NO
9	Crenshaw Blvd	8th St	LA	18.1	B	16.6	B	18.6	B	0.5	NO	16.3	B	-0.3	NO
10	Crenshaw Blvd	Olympic Blvd	LA	142.2	F	109.0	F	142.8	F	0.6	NO	104.6	F	-4.4	NO
11	Lucerne Ave	Wilshire Blvd	LA	17.7	B	24.1	C	17.3	B	-0.4	NO	24.9	C	0.8	NO
12	Rossmore Ave	Wilshire Blvd	LA	27.8	C	16.1	B	28.0	C	0.2	NO	15.3	B	-0.8	NO
13	Sycamore Ave	Wilshire Blvd	LA	5.5	A	4.2	A	5.6	A	0.1	NO	4.3	A	0.1	NO
14	La Brea Ave	Beverly Blvd	LA	149.1	F	122.3	F	151.5	F	2.4	NO	124.3	F	2.0	NO
15	La Brea Ave	3rd St	LA	46.7	D	28.1	C	46.6	D	-0.1	NO	27.7	C	-0.4	NO
16	La Brea Ave	6th St	LA	25.7	C	26.3	C	28.0	C	2.3	NO	27.1	C	0.8	NO
17	La Brea Ave	Wilshire Blvd	LA	48.5	D	51.4	D	47.7	D	-0.8	NO	52.3	D	0.9	NO
18	La Brea Ave	8th St	LA	10.0	A	15.3	B	10.4	B	0.4	NO	16.4	B	1.1	NO
19	La Brea Ave	Olympic Blvd	LA	79.6	E	96.1	F	81.6	F	2.0	NO	98.2	F	2.1	NO
20	Detroit St	Wilshire Blvd	LA	4.4	A	20.7	C	4.5	A	0.1	NO	18.9	B	-1.8	NO
21	Curson Ave	Wilshire Blvd	LA	69.6	E	24.5	C	45.1	D	-24.5	NO	24.3	C	-0.2	NO
22	Spaulding Ave	Wilshire Blvd	LA	14.9	B	14.4	B	14.9	B	0.0	NO	14.1	B	-0.3	NO
23	Fairfax Ave	Beverly Blvd	LA	18.4	B	39.0	D	21.6	C	3.2	NO	40.5	D	1.5	NO
24	Fairfax Ave	3rd St	LA	65.2	E	53.2	D	53.6	D	-11.6	NO	55.6	E	2.4	NO
25	Fairfax Ave	6th St	LA	16.1	B	21.0	C	17.9	B	1.8	NO	23.0	C	2.0	NO
26	Fairfax Ave	Wilshire Blvd	LA	84.6	F	143.6	F	86.0	F	1.4	NO	143.1	F	-0.5	NO
27	Fairfax Ave	Del Valle Dr/8th St	LA	12.9	B	11.4	B	14.4	B	1.5	NO	11.4	B	0.0	NO
28	San Vicente Blvd	Olympic Blvd	LA	260.2	F	197.1	F	248.5	F	-11.7	NO	181.3	F	-15.8	NO
29	Fairfax Ave	San Vicente Blvd	LA	117.2	F	43.3	D	119.8	F	2.6	NO	44.8	D	1.5	NO
30	Fairfax Ave	Olympic Blvd	LA	141.2	F	178.9	F	136.3	F	-4.9	NO	171.5	F	-7.4	NO
31	Fairfax Ave	Pico Blvd	LA	71.3	E	53.4	D	72.1	E	0.8	NO	49.6	D	-3.8	NO
32	Crescent Heights Blvd/McCarthy Vista	Wilshire Blvd	LA	18.7	B	30.0	C	24.3	C	5.6	NO	34.9	C	4.9	NO
33	San Vicente Blvd	Wilshire Blvd	LA	44.6	D	69.4	E	40.0	D	-4.6	NO	73.8	E	4.4	NO
34	Gale Dr	Wilshire Blvd	BH	12.7	B	10.9	B	12.5	B	-0.2	NO	10.8	B	-0.1	NO
35	La Cienega Blvd	3rd St	LA	70.7	E	45.8	D	68.5	E	-2.2	NO	44.9	D	-0.9	NO
36	San Vicente Blvd/Le Doux Rd	Burton Wy	LA	49.9	D	111.2	F	48.2	D	-1.7	NO	65.1	E	-46.1	NO
37	La Cienega Blvd	San Vicente Blvd/Burton Wy	LA	46.3	D	32.8	C	47.9	D	1.6	NO	29.6	C	-3.2	NO
38	La Cienega Blvd	Clifton Wy	LA	13.8	B	33.0	C	14.0	B	0.2	NO	34.2	C	1.2	NO
39	La Cienega Blvd	Wilshire Blvd	BH	60.2	E	60.5	E	56.7	E	-3.5	NO	55.1	E	-5.4	NO
40	La Cienega Blvd	Gregory Wy	BH	56.8	E	62.0	E	56.8	E	0.0	NO	61.9	E	-0.1	NO
41	La Cienega Blvd	Olympic Blvd	LA	61.6	E	122.7	F	59.1	E	-2.5	NO	80.5	F	-42.2	NO
42	La Cienega Blvd	Pico Blvd	LA	43.3	D	100.6	F	46.0	D	2.7	NO	97.8	F	-2.8	NO
43	San Vicente Blvd	3rd St	LA	36.2	D	27.5	C	36.9	D	0.7	NO	25.9	C	-1.6	NO
44	Willaman Dr	Wilshire Blvd	BH	9.4	A	9.3	A	9.3	A	-0.1	NO	9.3	A	0.0	NO
45	Robertson Blvd	Burton Wy	BH	36.6	D	72.3	E	35.6	D	-1.0	NO	48.0	D	-24.3	NO
46	Robertson Blvd	Wilshire Blvd	BH	49.2	D	54.2	D	47.8	D	-1.4	NO	50.7	D	-3.5	NO
47	Robertson Blvd	Olympic Blvd	BH	61.1	E	72.5	E	48.2	D	-12.9	NO	70.1	E	-2.4	NO
48	Doheny Dr	Wilshire Blvd	BH	45.2	D	39.6	D	44.1	D	-1.1	NO	40.7	D	1.1	NO
49	Canon Dr	Santa Monica Blvd	BH	29.6	C	58.7	E	27.1	C	-2.5	NO	57.2	E	-1.5	NO
50	Canon Dr	Dayton Dr	BH	12.8	B	14.8	B	13.3	B	0.5	NO	16.2	B	1.4	NO
51	Canon Dr	Wilshire Blvd	BH	23.4	C	25.1	C	22.3	C	-1.1	NO	29.0	C	3.9	NO
52	Beverly Dr	Santa Monica Blvd	BH	56.8	E	87.3	F	53.9	D	-2.9	NO	85.7	F	-1.6	NO
53	Beverly Dr	South Santa Monica Blvd	BH	51.4	D	54.2	D	44.9	D	-6.5	NO	44.6	D	-9.6	NO
54	Beverly Dr	Dayton Dr	BH	15.4	B	25.2	C	15.0	B	-0.4	NO	14.4	B	-10.8	NO
55	Beverly Dr	Wilshire Blvd	BH	33.0	C	56.0	E	31.4	C	-1.6	NO	57.7	E	1.7	NO
56	Beverly Dr	Charleville Blvd	BH	16.7	B	19.3	B	16.7	B	0.0	NO	19.1	B	-0.2	NO
57	Beverwil Dr	Olympic Blvd	BH	102.4	F	101.6	F	100.5	F	-1.9	NO	82.9	F	-18.7	NO
58	Beverly Dr	Olympic Blvd	BH	124.4	F	107.4	F	112.8	F	-11.6	NO	86.9	F	-20.5	NO
59	Rodeo Dr	Dayton Dr	BH	18.6	B	20.5	C	18.6	B	0.0	NO	20.5	C	0.0	NO
60	Rodeo Dr	Wilshire Blvd	BH	17.4	B	23.1	C	17.3	B	-0.1	NO	22.5	C	-0.6	NO
61	Camden Dr/Dayton Dr	Wilshire Blvd	BH	106.1	F	99.6	F	108.1	F	2.0	NO	95.2	F	-4.4	NO
62	Santa Monica Blvd	Wilshire Blvd	BH	233.9	F	215.2	F	224.8	F	-9.1	NO	206.0	F	-9.2	NO
63	South Santa Monica Blvd	Wilshire Blvd	BH	140.9	F	97.0	F	119.4	F	-21.5	NO	79.1	E	-17.9	NO
64	Century Park East	Santa Monica Blvd	LA	78.8	E	40.5	D	76.6	E	-2.2	NO	36.6	D	-3.9	NO
65	Century Park East	Constellation Blvd	LA	21.7	C	34.1	C	21.4	C	-0.3	NO	37.7	D	3.6	NO
66	Century Park East	Olympic Blvd	LA	56.0	E	42.8	D	53.6	D	-2.4	NO	37.8	D	-5.0	NO
67	Avenue of the Stars	Santa Monica Blvd	LA	77.1	E	38.1	D	77.1	E	0.0	NO	37.8	D	-0.3	NO
68	Avenue of the Stars	Constellation Blvd	LA	33.9	C	31.7	C	36.6	D	2.7	NO	34.3	C	2.6	NO

Intersection	North/South Street	East/West Street	Jurisdiction	Existing Level of Service				Existing plus Project Level of Service and Impact Determination							
				AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
				Delay (sec)	LOS per Delay	Delay (sec)	LOS per Delay	Delay (sec)	LOS per Delay	Change in Delay	Impact	Delay (sec)	LOS per Delay	Change in Delay	Impact
69	Avenue of the Stars	Olympic Blvd (W/B Ramps)	LA	12.0	B	10.4	B	12.1	B	0.1	NO	10.3	B	-0.1	NO
70	Avenue of the Stars	Olympic Blvd (E/B Ramps)	LA	16.4	B	13.7	B	16.3	B	-0.1	NO	13.6	B	-0.1	NO
71	Avenue of the Stars	Galaxy Wy	LA	16.1	B	18.2	B	16.0	B	-0.1	NO	18.6	B	0.4	NO
72	Avenue of the Stars	Pico Blvd	LA	178.7	F	29.2	C	167.3	F	-11.4	NO	28.0	C	-1.2	NO
73	Century Park West	Santa Monica Blvd	LA	92.7	F	26.5	C	86.3	F	-6.4	NO	26.4	C	-0.1	NO
74	Century Park West	Constellation Blvd	LA	12.5	B	34.9	C	11.8	B	-0.7	NO	32.1	C	-2.8	NO
75	Century Park West	Olympic Blvd	LA	80.1	F	31.0	C	77.5	E	-2.6	NO	28.2	C	-2.8	NO
76	Beverly Glen Blvd	Wilshire Blvd	LA	39.2	D	35.9	D	40.5	D	1.3	NO	35.1	D	-0.8	NO
77	Beverly Glen Blvd	Santa Monica Blvd	LA	226.7	F	204.4	F	222.5	F	-4.2	NO	176.3	F	-28.1	NO
78	Beverly Glen Blvd	Olympic Blvd	LA	128.4	F	58.0	E	125.0	F	-3.4	NO	44.7	D	-13.3	NO
79	Hilgard Ave/Copa De Oro Rd	Sunset Blvd	LA	141.1	F	51.1	D	135.7	F	-5.4	NO	53.9	D	2.8	NO
80	Hilgard Ave	Le Conte Ave	LA	32.0	C	39.9	D	34.6	C	2.6	NO	43.5	D	3.6	NO
81	Glendon Ave/Tiverton Ave	Lindbrook Ave	LA	16.3	B	30.2	C	17.5	B	1.2	NO	37.2	D	7.0	NO
82	Glendon Ave	Wilshire Blvd	LA	46.4	D	99.5	F	37.8	D	-8.6	NO	97.7	F	-1.8	NO
83	Westwood Blvd	Le Conte Ave	LA	25.7	C	16.4	B	26.0	C	0.3	NO	16.1	B	-0.3	NO
84	Westwood Blvd	Weyburn Ave	LA	15.6	B	26.9	C	15.8	B	0.2	NO	26.5	C	-0.4	NO
85	Westwood Blvd	Lindbrook Ave	LA	41.0	D	36.9	D	45.0	D	4.0	NO	43.0	D	6.1	NO
86	Westwood Blvd	Wilshire Blvd	LA	98.9	F	102.3	F	101.7	F	2.8	NO	105.5	F	3.2	NO
87	Westwood Blvd	Wellworth Ave	LA	22.0	C	195.6	F	21.4	C	-0.6	NO	192.4	F	-3.2	NO
88	Westwood Blvd	Ohio Ave	LA	40.7	D	78.3	E	45.6	D	4.9	NO	68.4	E	-9.9	NO
89	Westwood Blvd	Santa Monica Blvd	LA	120.0	F	97.7	F	122.7	F	2.7	NO	85.1	F	-12.6	NO
90	Westwood Blvd	Olympic Blvd	LA	90.8	F	62.2	E	86.4	F	-4.4	NO	61.4	E	-0.8	NO
91	Westwood Blvd	Pico Blvd	LA	31.9	C	76.2	E	28.4	C	-3.5	NO	69.4	E	-6.8	NO
92	Gayley Ave	Le Conte Ave	LA	11.3	B	41.3	D	10.8	B	-0.5	NO	41.5	D	0.2	NO
93	Gayley Ave	Lindbrook Ave	LA	15.3	B	30.1	C	15.9	B	0.6	NO	28.4	C	-1.7	NO
94	Gayley Ave/Midvale Ave	Wilshire Blvd	LA	119.4	F	128.5	F	120.1	F	0.7	NO	125.9	F	-2.6	NO
95	Veteran Ave	Sunset Blvd	LA	76.3	E	44.2	D	79.4	E	3.1	NO	43.5	D	-0.7	NO
96	Veteran Ave	Wilshire Blvd	LA	256.2	F	167.8	F	259.1	F	2.9	NO	169.6	F	1.8	NO
97	Sepulveda Blvd	Wilshire Blvd	LA	247.5	F	236.8	F	244.4	F	-3.1	NO	240.5	F	3.7	NO
98	Sepulveda Blvd	Olympic Blvd	LA	40.3	D	60.8	E	36.6	D	-3.7	NO	59.7	E	-1.1	NO
99	Sepulveda Blvd	Pico Blvd	LA	61.2	E	76.0	E	54.2	D	-7.0	NO	72.3	E	-3.7	NO
100	San Vicente/Federal Ave	Wilshire Blvd	LA	130.9	F	86.3	F	133.4	F	2.5	NO	84.0	F	-2.3	NO
101	Barrington Ave	West San Vicente Blvd	LA	44.1	D	43.2	D	39.9	D	-4.2	NO	26.1	C	-17.1	NO
102	Barrington Ave	Wilshire Blvd	LA	37.1	D	29.5	C	37.0	D	-0.1	NO	28.9	C	-0.6	NO
103	Barrington Ave	Texas Ave	LA	9.5	A	29.8	C	9.5	A	0.0	NO	30.4	C	0.6	NO
104	Barrington Ave	Santa Monica Blvd	LA	25.2	C	20.9	C	26.7	C	1.5	NO	19.5	B	-1.4	NO
105	Barrington Ave	Olympic Blvd	LA	66.8	E	54.1	D	60.7	E	-6.1	NO	58.4	E	4.3	NO
106	Westgate Ave	Wilshire Blvd	LA	5.1	A	5.5	A	5.2	A	0.1	NO	4.5	A	-1.0	NO
107	Brockton Ave	Wilshire Blvd	LA	9.9	A	10.1	B	9.9	A	0.0	NO	10.4	B	0.3	NO
108	Bundy Dr	West San Vicente Blvd	LA	38.1	D	50.0	D	38.1	D	0.0	NO	28.5	C	-21.5	NO
109	Bundy Dr	Wilshire Blvd	LA	49.8	D	79.2	E	52.9	D	3.1	NO	68.7	E	-10.5	NO
110	Bundy Dr	Texas Ave	LA	10.5	B	16.2	B	9.4	A	-1.1	NO	16.4	B	0.2	NO
111	Bundy Dr	Santa Monica Blvd	LA	28.0	C	29.2	C	28.4	C	0.4	NO	29.3	C	0.1	NO
112	Bundy Dr	Olympic Blvd	LA	120.9	F	87.2	F	115.6	F	-5.3	NO	86.7	F	-0.5	NO
113	Bundy Dr	Pico Blvd	LA	44.3	D	90.9	F	39.9	D	-4.4	NO	87.9	F	-3.0	NO
138	Orlando Ave	Beverly Blvd	LA	12.9	B	20.6	C	12.7	B	-0.2	NO	17.7	B	-2.9	NO
145	La Cienega Blvd	Oakwood Ave	LA	17.0	B	28.1	C	17.2	B	0.2	NO	24.8	C	-3.3	NO
146	La Cienega Blvd	Beverly Blvd	LA	62.7	E	91.6	F	62.9	E	0.2	NO	89.6	F	-2.0	NO
147	San Vicente Blvd	Beverly Blvd	LA	29.1	C	46.4	D	28.8	C	-0.3	NO	49.0	D	2.6	NO
154	Robertson Blvd	Beverly Blvd	LA	55.7	E	73.0	E	56.1	E	0.4	NO	76.8	E	3.8	NO
185	Veteran Ave	Ohio Ave	LA	25.0	C	34.0	C	26.2	C	1.2	NO	22.9	C	-11.1	NO
186	Veteran Ave	Santa Monica Blvd	LA	31.0	C	60.7	E	30.9	C	-0.1	NO	58.6	E	-2.1	NO
187	Sepulveda Blvd	Ohio Ave	LA	35.2	D	38.0	D	35.8	D	0.6	NO	25.8	C	-12.2	NO
188	Sepulveda Blvd	Santa Monica Blvd	LA	41.3	D	40.2	D	44.3	D	3.0	NO	38.7	D	-1.5	NO
189	I-405 NB Ramps	Santa Monica Blvd	LA	41.1	D	70.1	E	38.5	D	-2.6	NO	52.5	D	-17.6	NO
190	I-405 SB Ramps	Santa Monica Blvd	LA	29.6	C	31.7	C	30.6	C	1.0	NO	32.2	C	0.5	NO
191	Sawtelle Blvd	Ohio Ave	LA	35.1	D	23.4	C	33.3	C	-1.8	NO	21.5	C	-1.9	NO
192	Federal Ave	Santa Monica Blvd	LA	17.8	B	20.6	C	16.7	B	-1.1	NO	26.2	C	5.6	NO

NOTE:

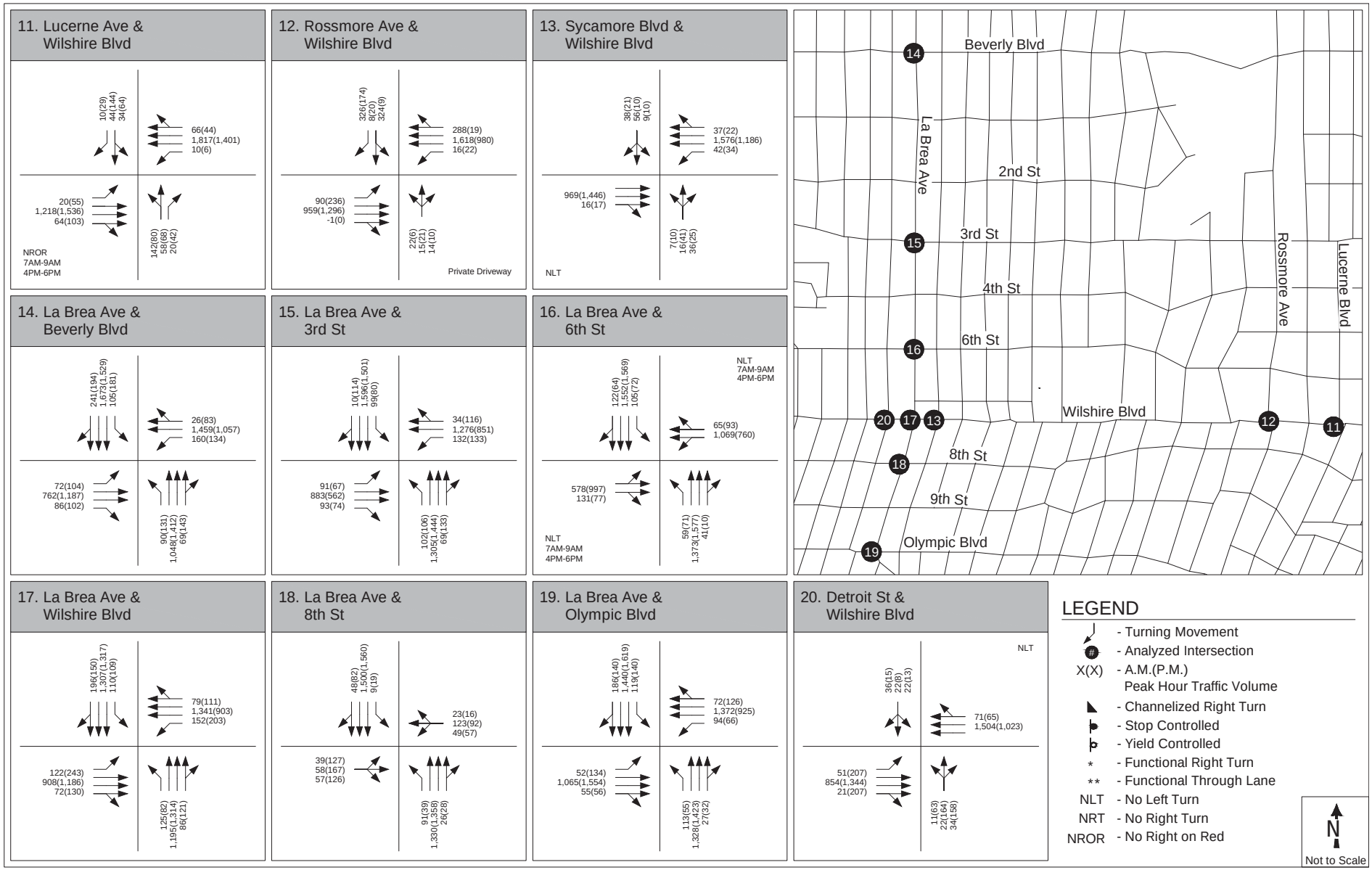
LA	City of Los Angeles
BH	City of Beverly Hills
WH	City of West Hollywood
SM	City of Santa Monica

Appendix B EXISTING PLUS PROJECT VOLUMES



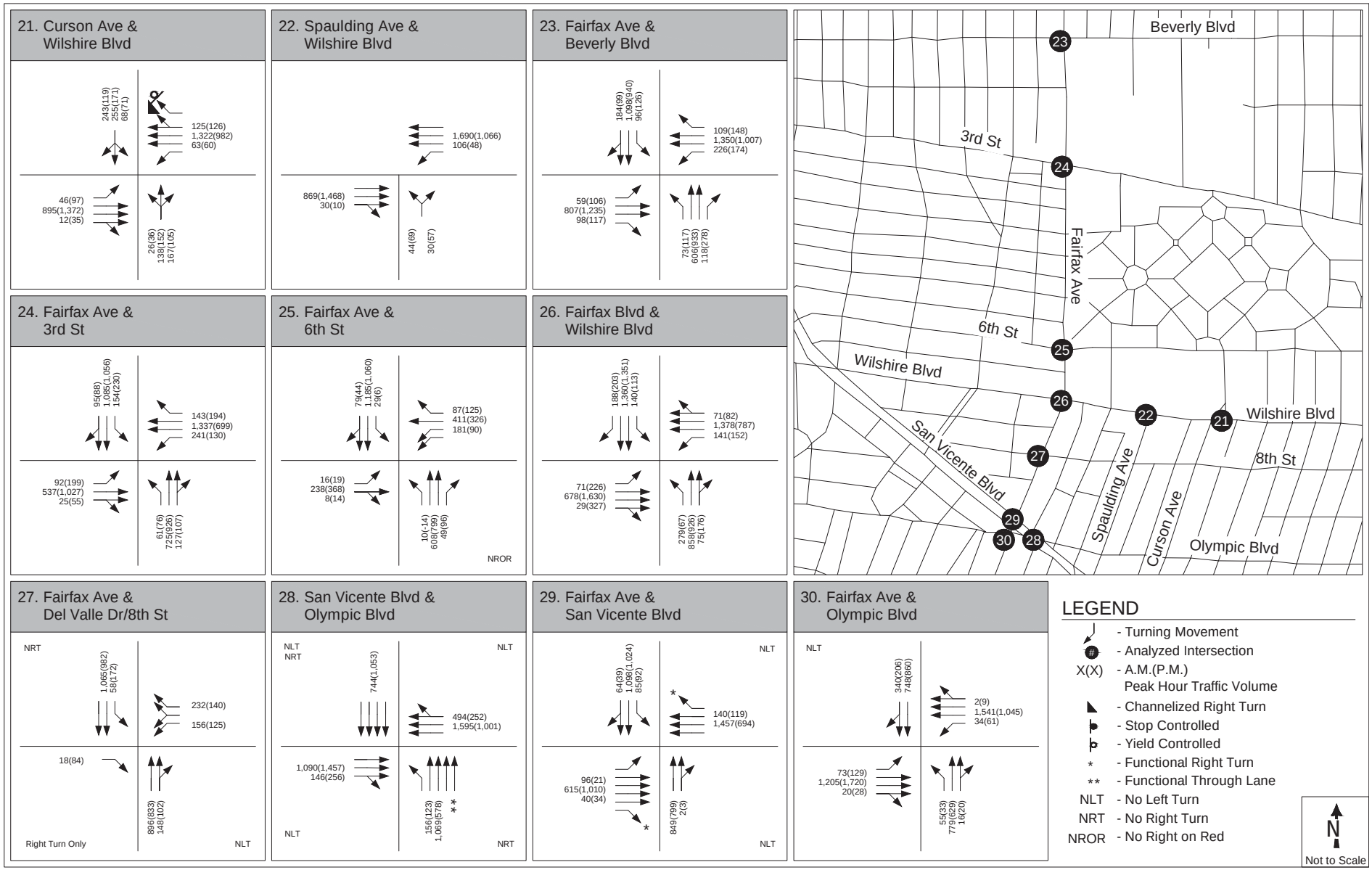
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



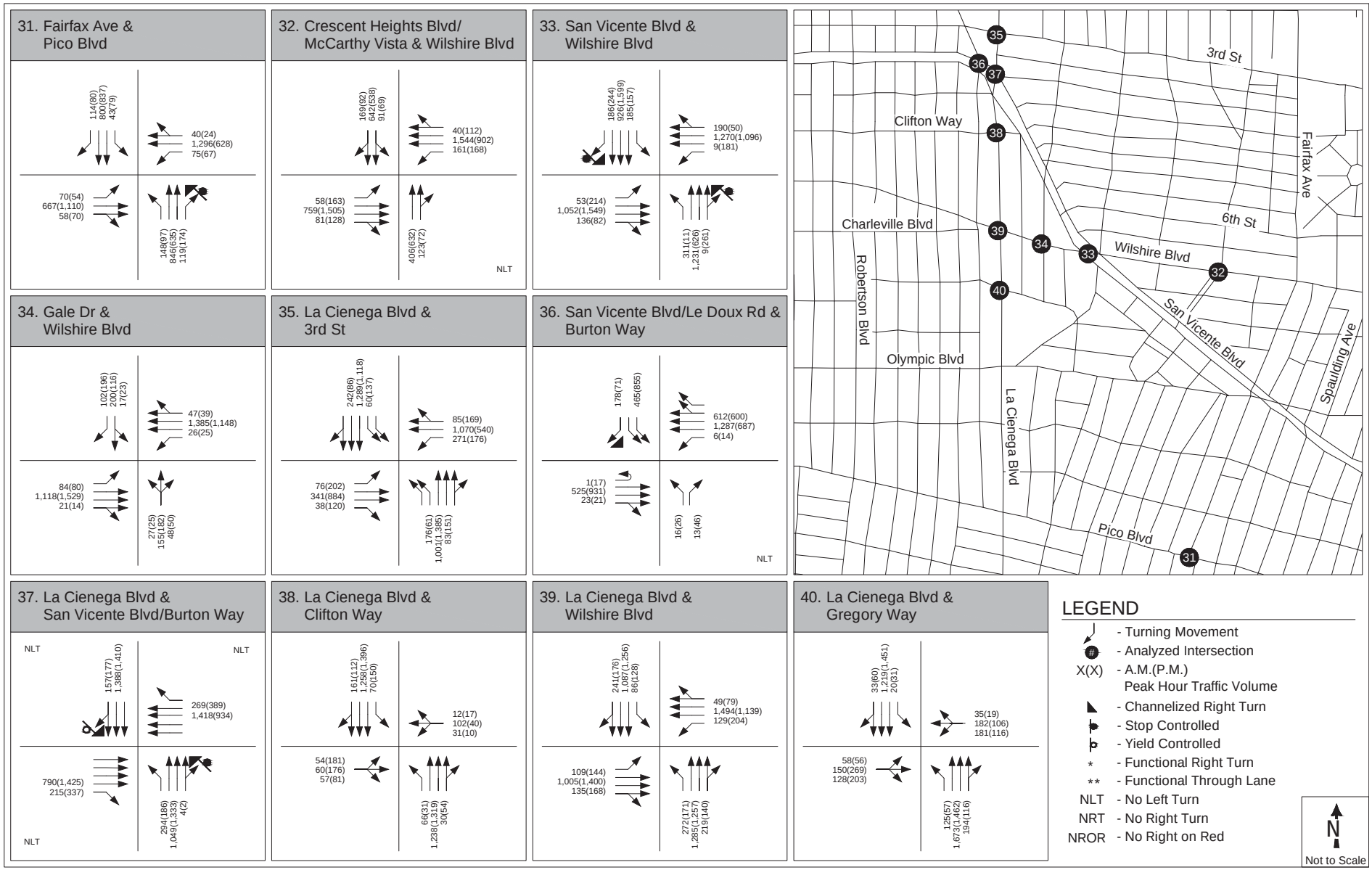
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



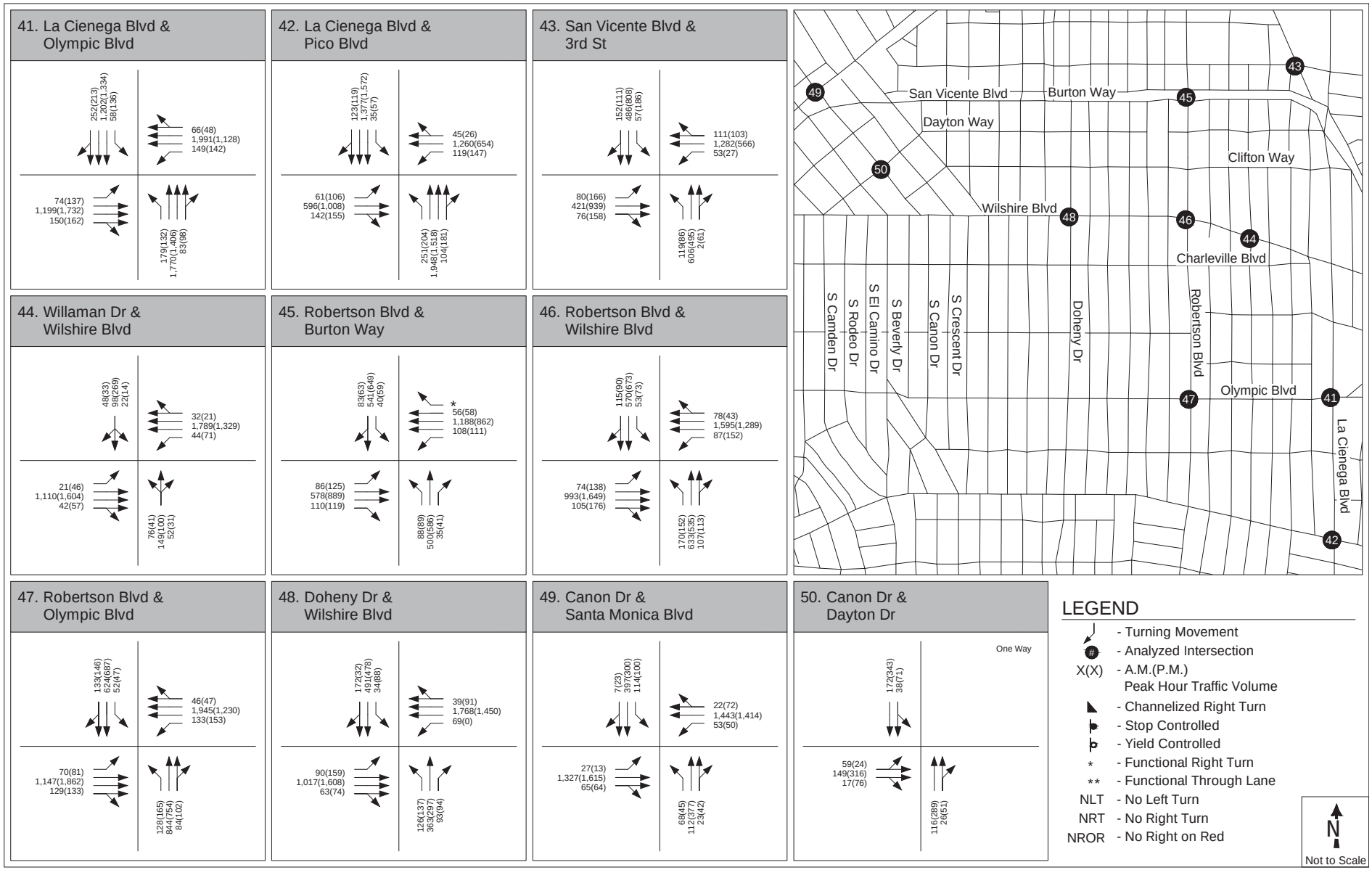
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



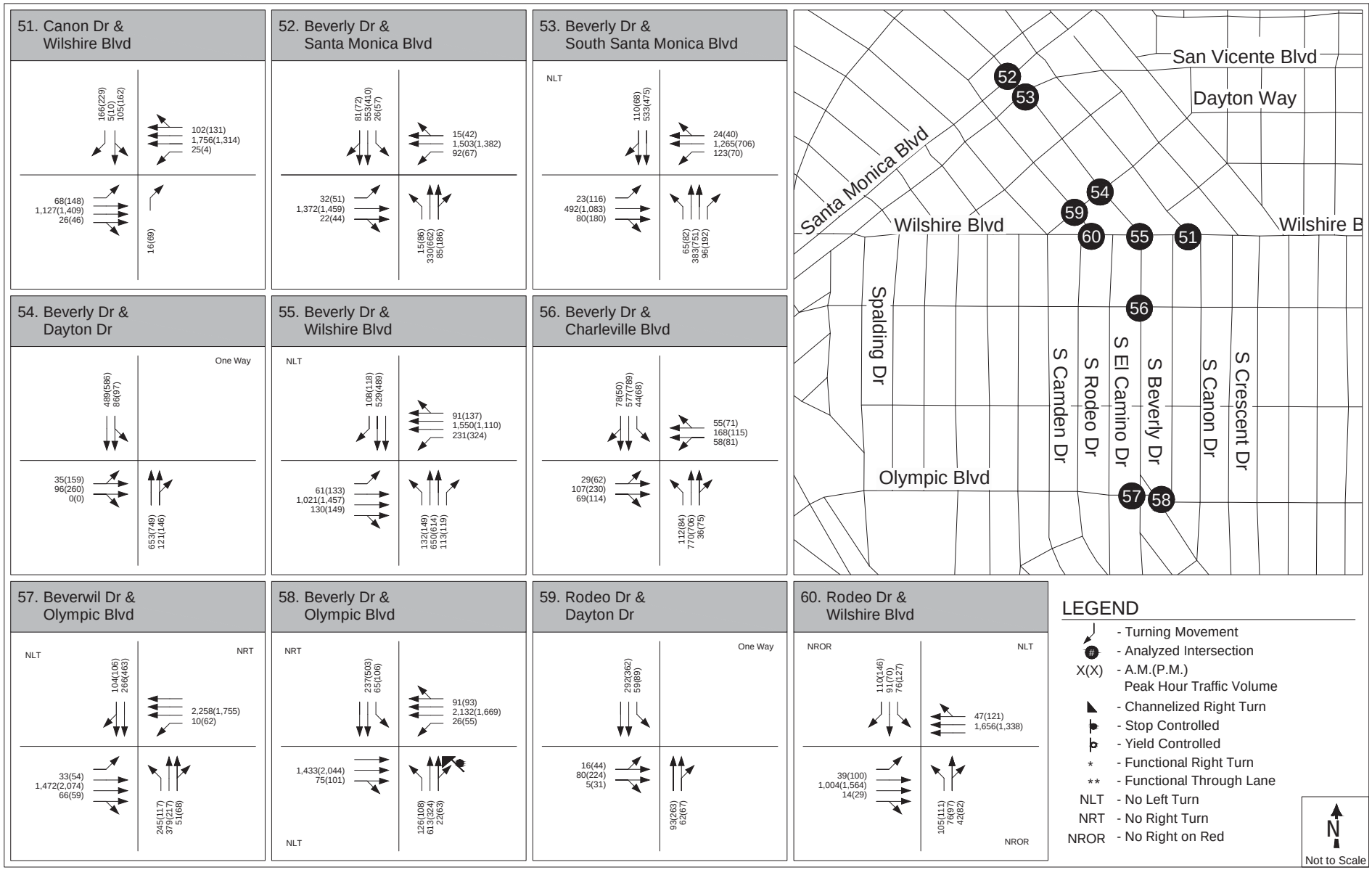
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



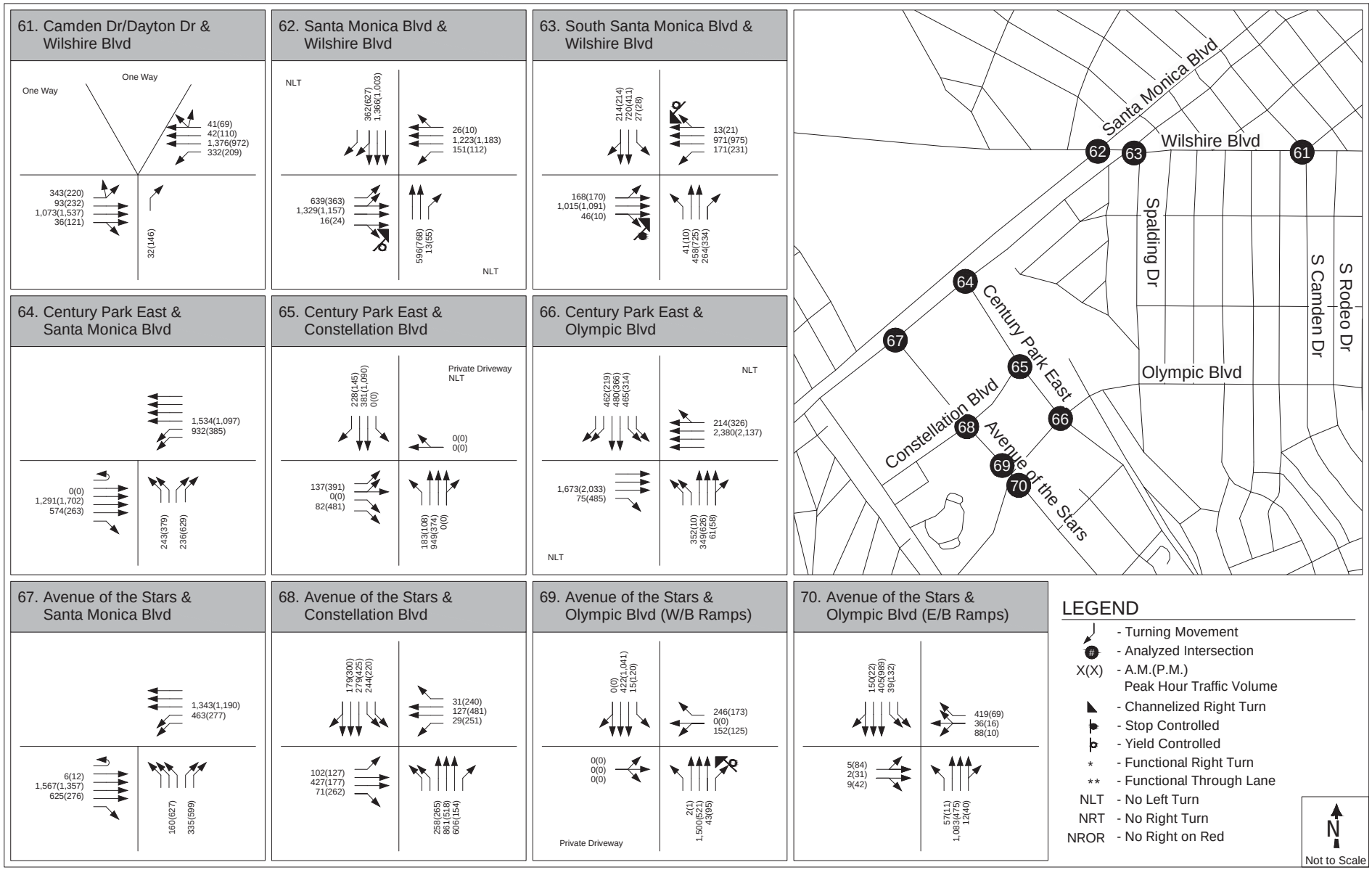
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



Existing Plus Project Peak Hour Traffic Volumes

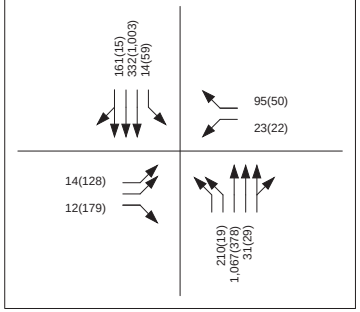
Appendix B



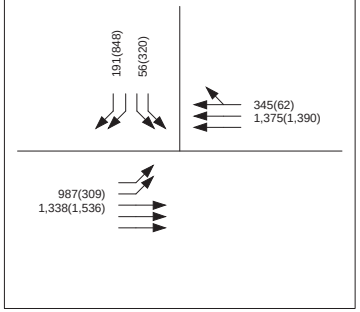
Existing Plus Project Peak Hour Traffic Volumes

Appendix B

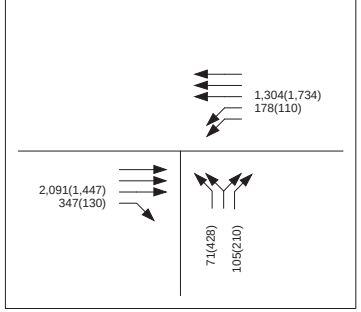
71. Avenue of the Stars & Galaxy Way



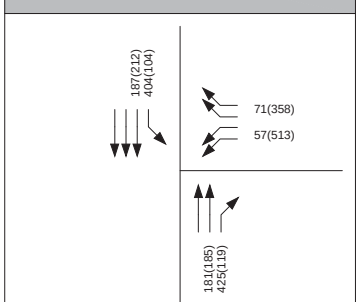
72. Avenue of the Stars & Pico Blvd



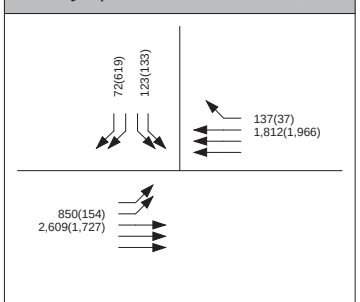
73. Century Park West & Santa Monica Blvd



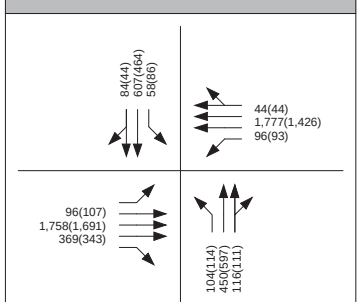
74. Century Park West & Constellation Blvd



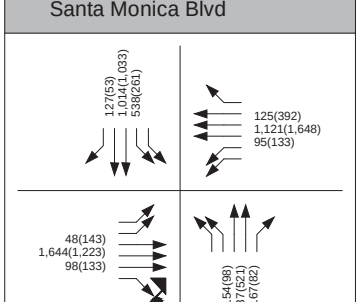
75. Century Park West & Olympic Blvd



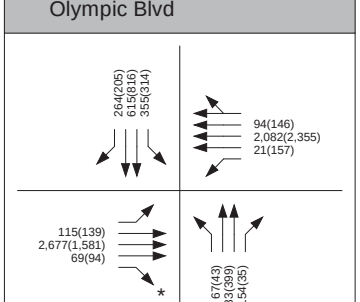
76. Beverly Glen Blvd & Wilshire Blvd



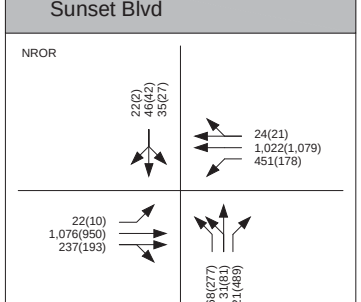
77. Beverly Glen Blvd & Santa Monica Blvd



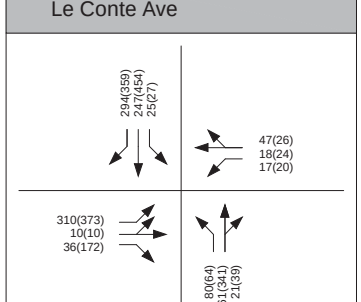
78. Beverly Glen Blvd & Olympic Blvd

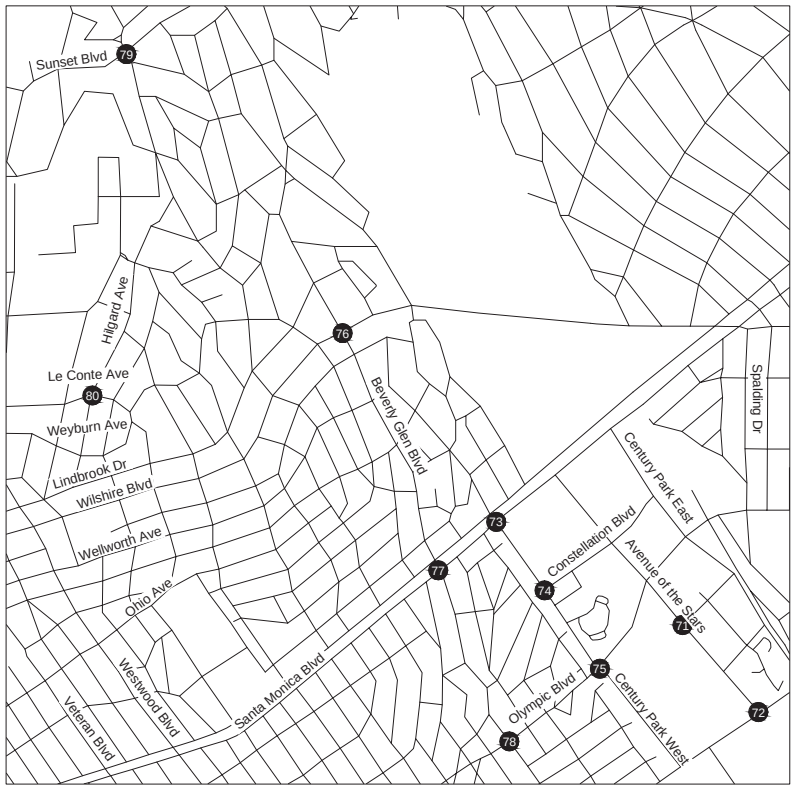


79. Hilgard Ave/Copa De Oro Rd & Sunset Blvd



80. Hilgard Ave & Le Conte Ave





LEGEND

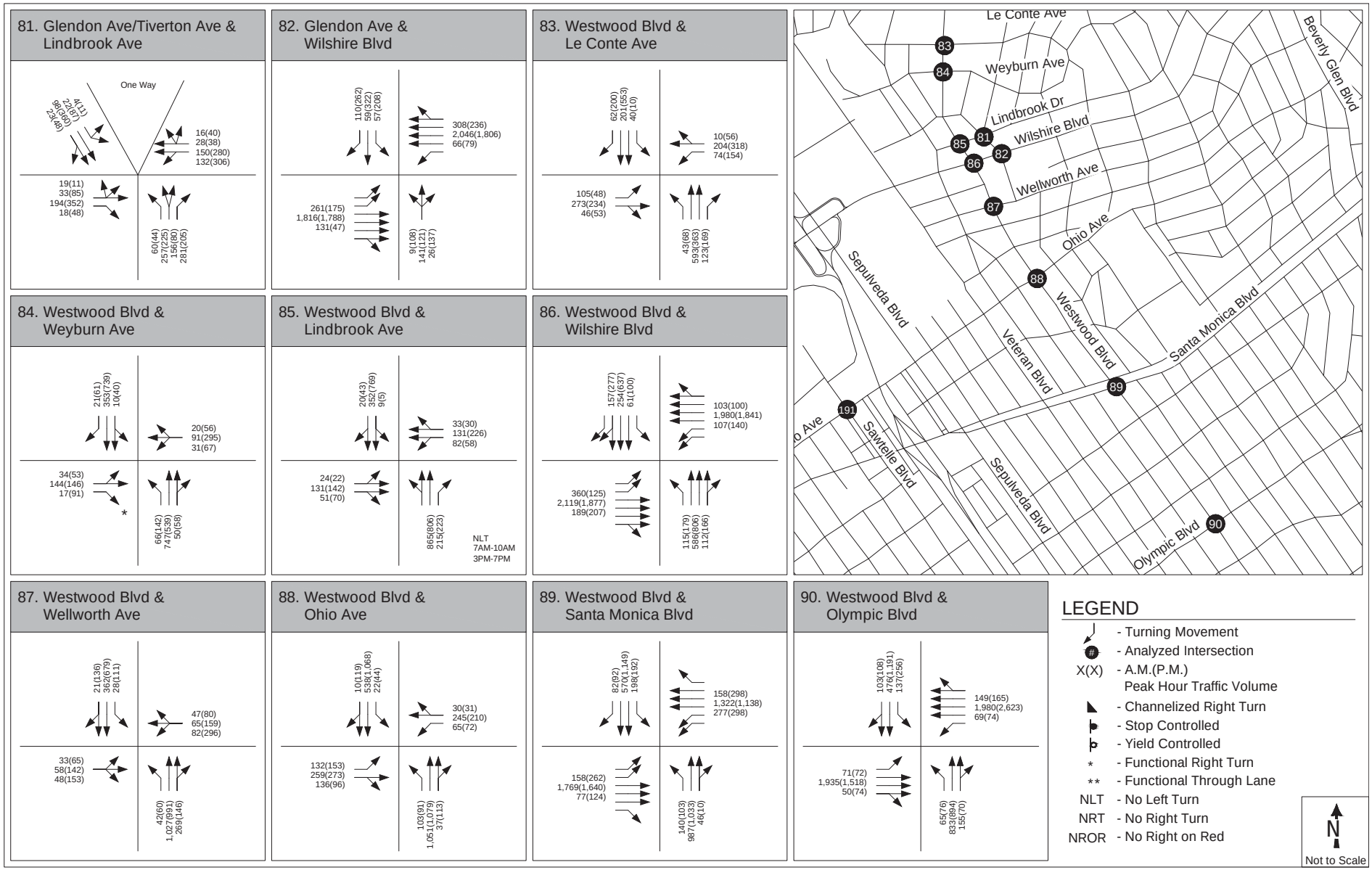
- Turning Movement
- # - Analyzed Intersection
- X(X) - A.M.(P.M.) Peak Hour Traffic Volume
- Channelized Right Turn
- Stop Controlled
- Yield Controlled
- * - Functional Right Turn
- ** - Functional Through Lane
- NLT - No Left Turn
- NRT - No Right Turn
- NROR - No Right on Red

N

Not to Scale

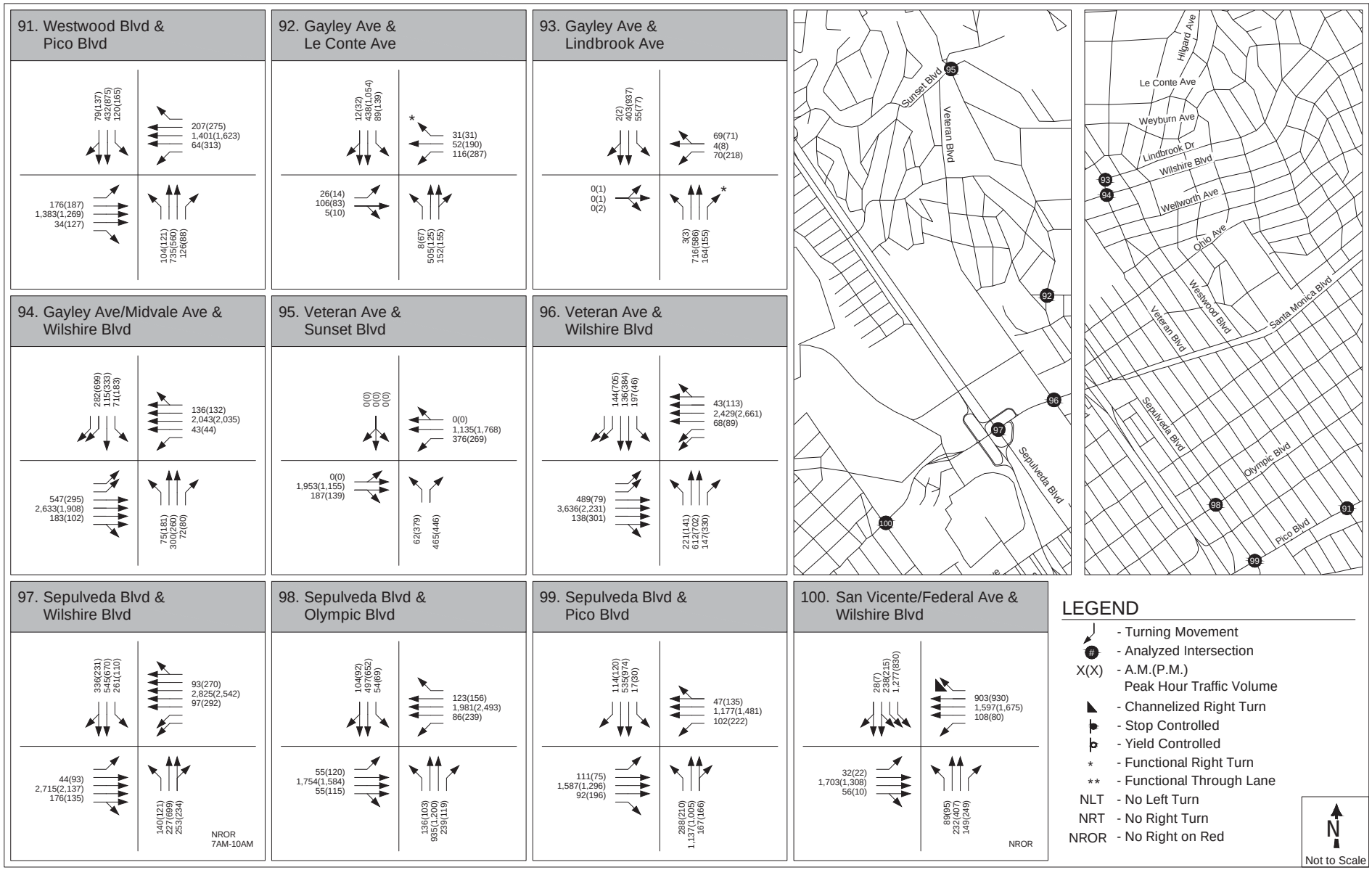
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



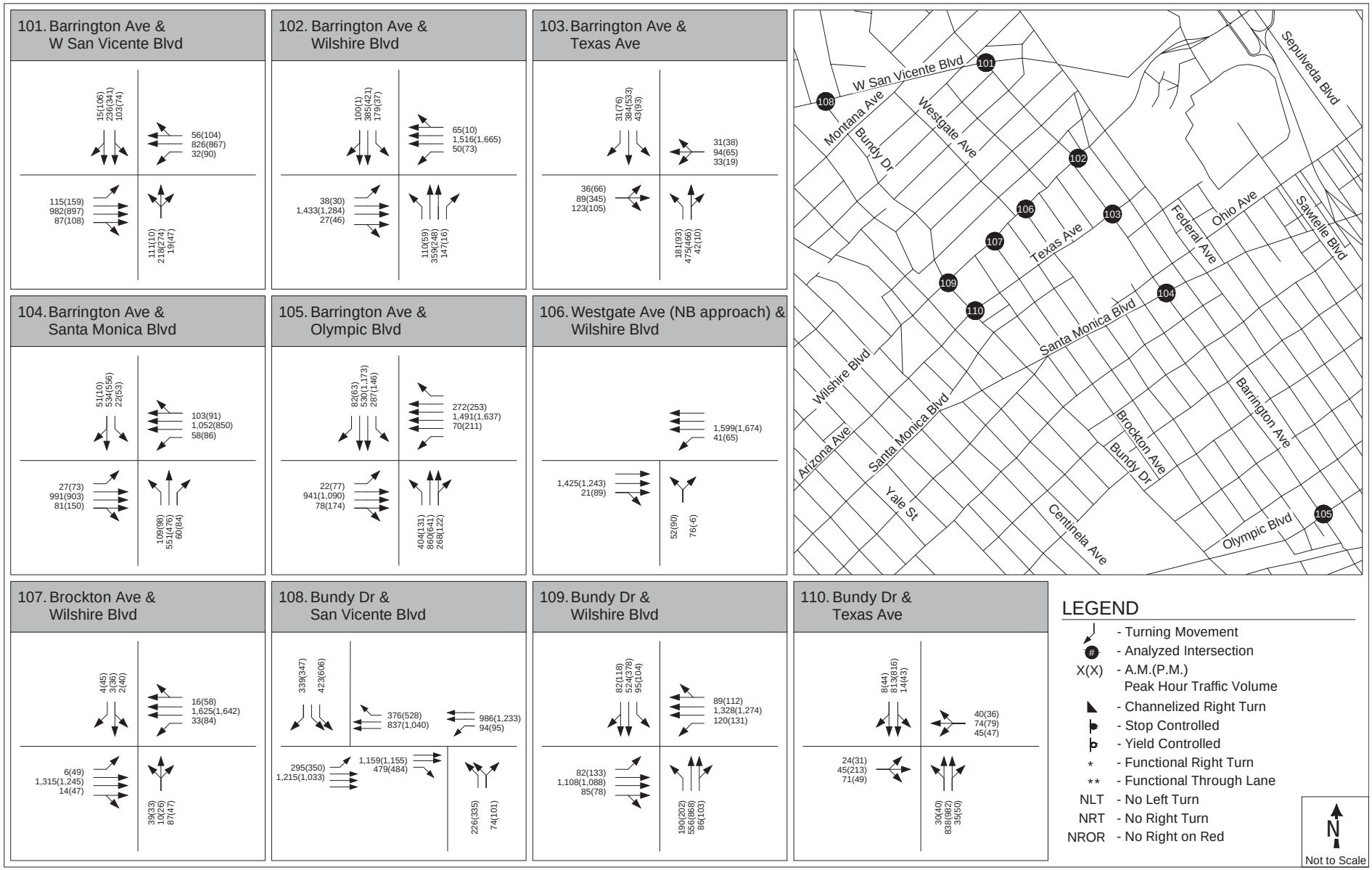
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



Existing Plus Project Peak Hour Traffic Volumes

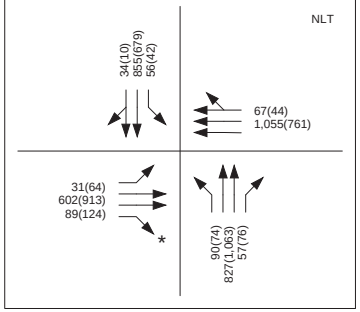
Appendix B



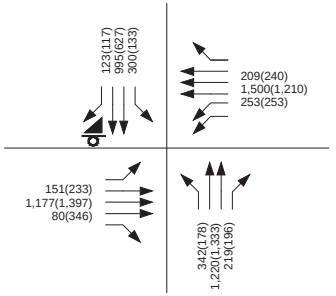
Existing Plus Project Peak Hour Traffic Volumes

Appendix B

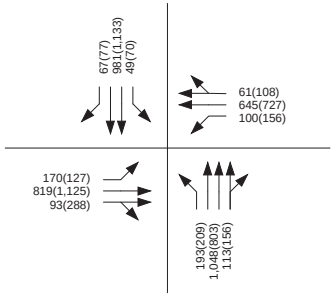
111. Bundy Dr & Santa Monica Blvd



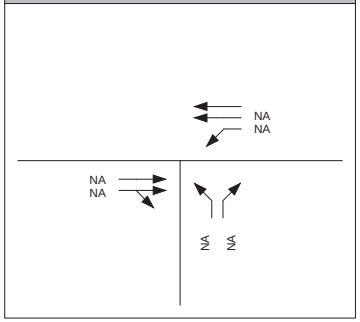
112. Bundy Dr & Olympic Blvd



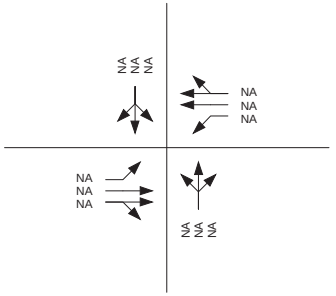
113. Bundy Dr & Pico Blvd



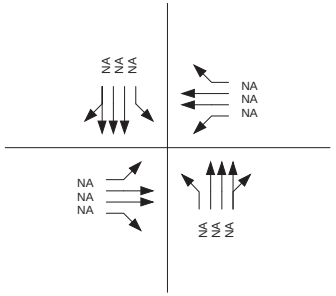
114. Centinela Ave (NB approach) & Wilshire Blvd

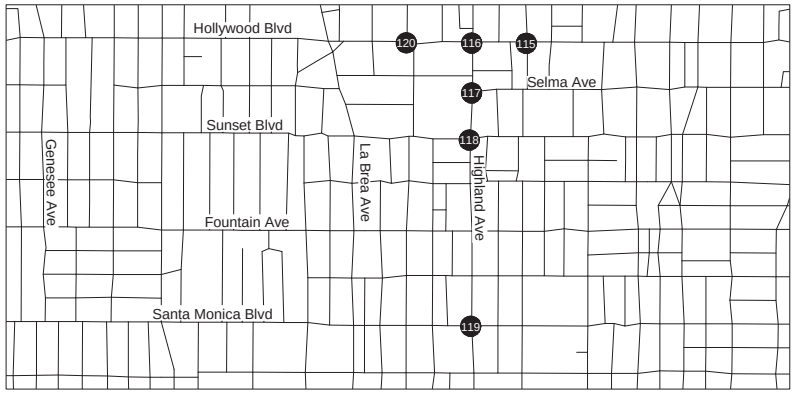


115. Las Palmas Ave & Hollywood Blvd

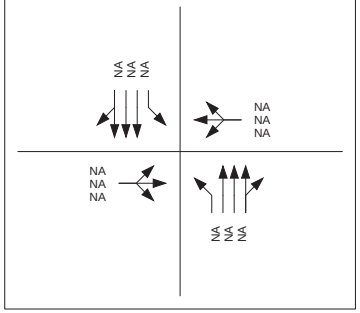


116. Highland Ave & Hollywood Blvd

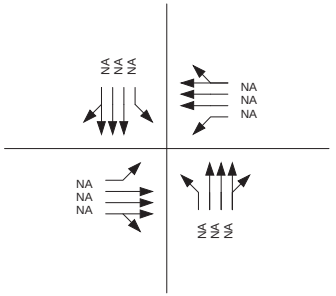




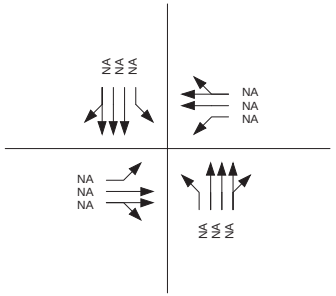
117. Highland Ave & Selma Ave



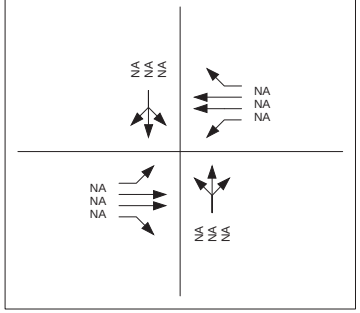
118. Highland Ave & Sunset Blvd



119. Highland Ave & Santa Monica Blvd



120. Orange Dr & Hollywood Blvd



LEGEND

- Turning Movement
- (#) - Analyzed Intersection
- X(X) - A.M.(P.M.) Peak Hour Traffic Volume
- Channelized Right Turn
- Stop Controlled
- Yield Controlled
- * - Functional Right Turn
- ** - Functional Through Lane
- NLT - No Left Turn
- NRT - No Right Turn
- NROR - No Right on Red

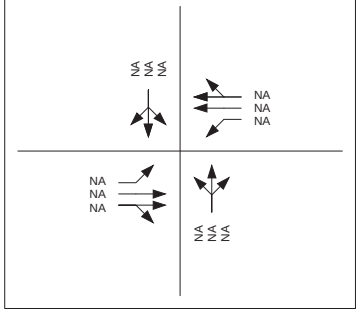
N

Not to Scale

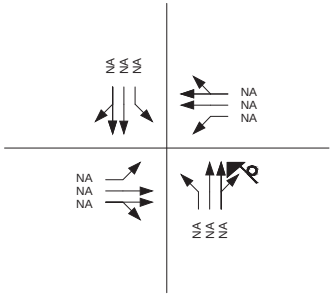
Existing Plus Project Peak Hour Traffic Volumes

Appendix B

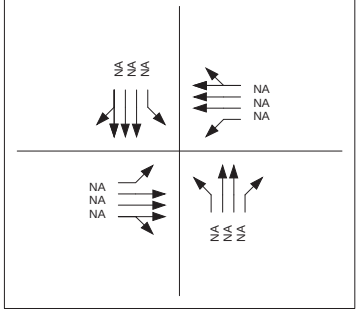
121. Orange Dr & Santa Monica Blvd

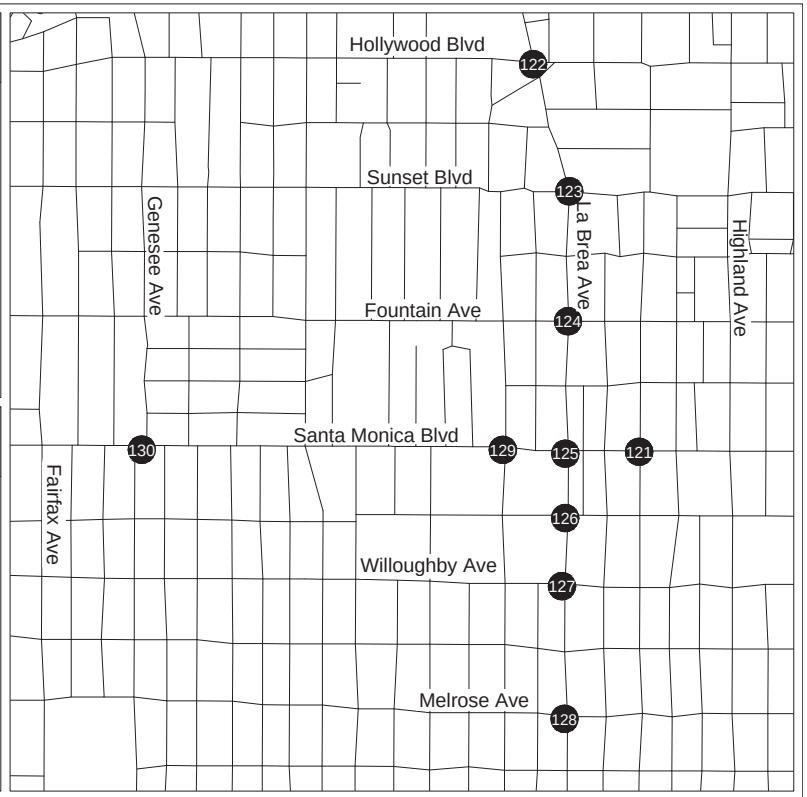


122. La Brea Ave & Hollywood Blvd

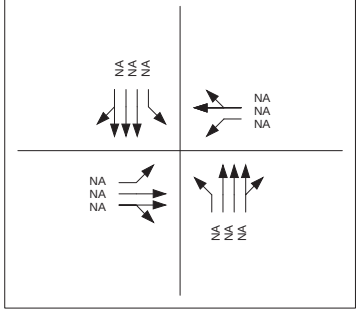


123. La Brea Ave & Sunset Blvd

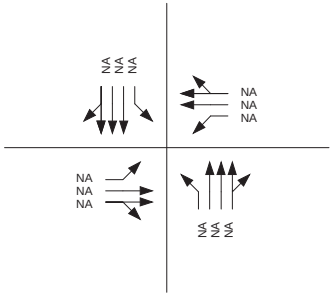




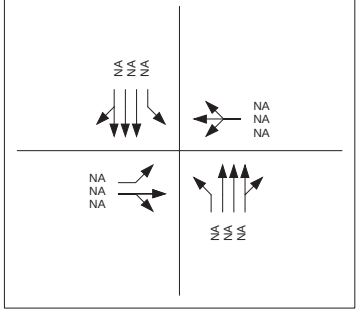
124. La Brea Ave & Fountain Ave



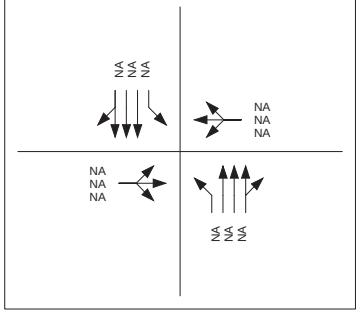
125. La Brea Ave & Santa Monica Blvd



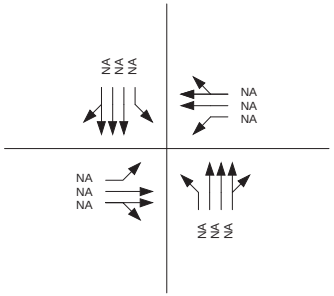
126. La Brea Ave & Romaine St



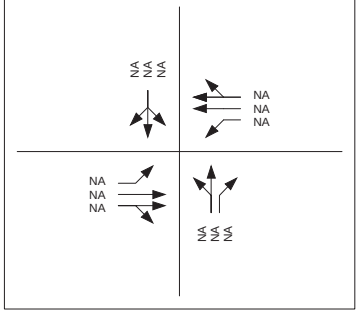
127. La Brea Ave & Willoughby Ave



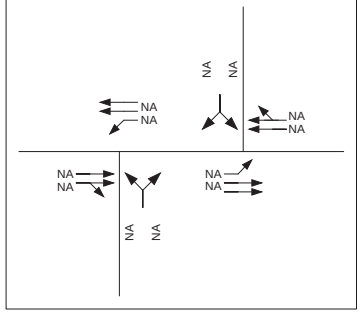
128. La Brea Ave & Melrose Ave



129. Formosa Ave & Santa Monica Blvd



130. Genessee Ave & Santa Monica Blvd



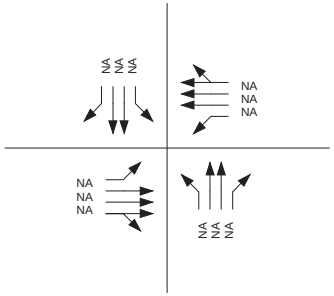
LEGEND

- Turning Movement
- # - Analyzed Intersection
- X(X) - A.M.(P.M.) Peak Hour Traffic Volume
- Channelized Right Turn
- Stop Controlled
- Yield Controlled
- * - Functional Right Turn
- ** - Functional Through Lane
- NLT - No Left Turn
- NRT - No Right Turn
- NROR - No Right on Red

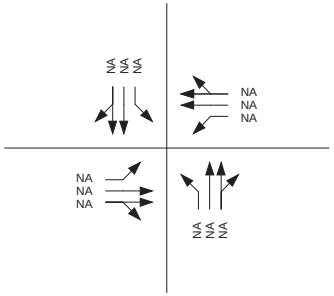
N

Not to Scale

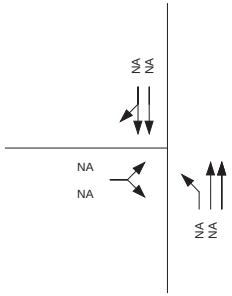
131. Fairfax Ave & Sunset Blvd



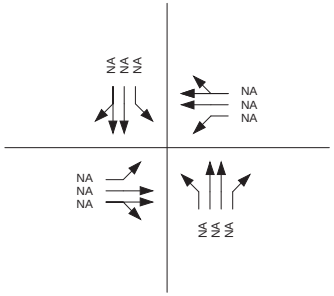
132. Fairfax Ave & Fountain Ave



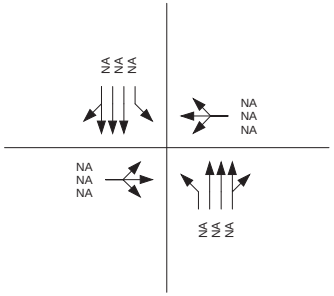
133. Fairfax Ave & Norton Ave



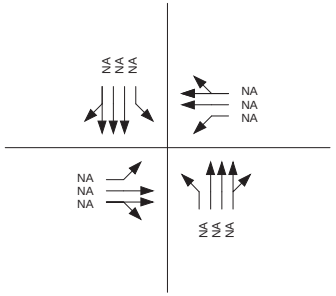
134. Fairfax Ave & Santa Monica Blvd

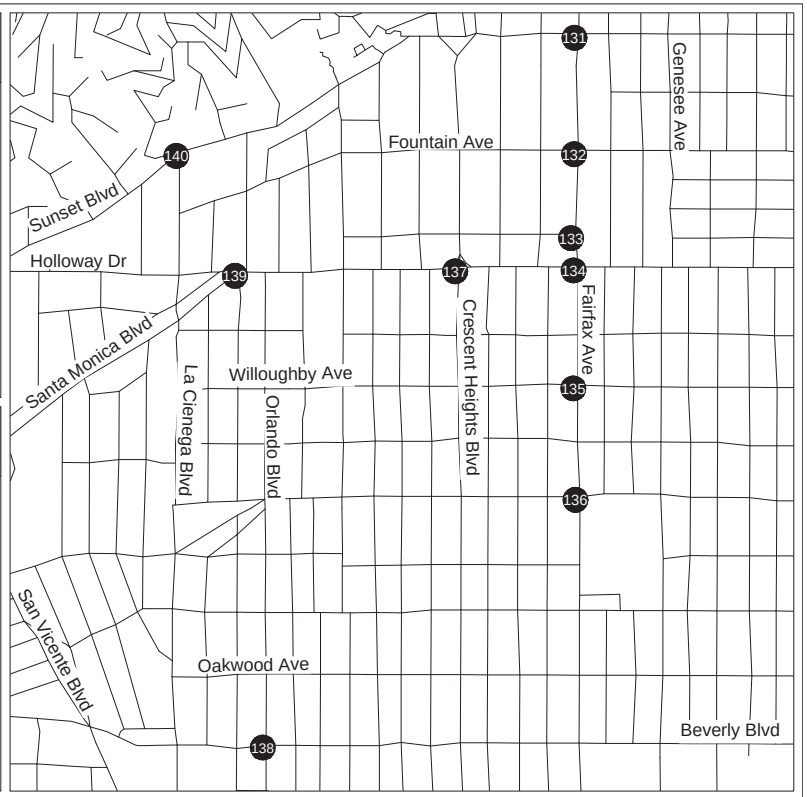


135. Fairfax Ave & Willoughby Ave

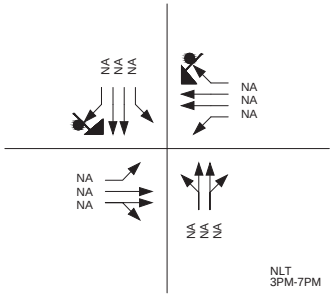


136. Fairfax Ave & Melrose Ave

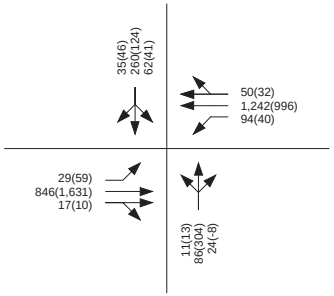




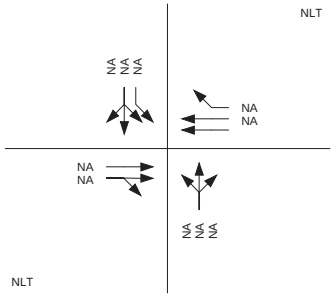
137. Crescent Heights Blvd & Santa Monica Blvd



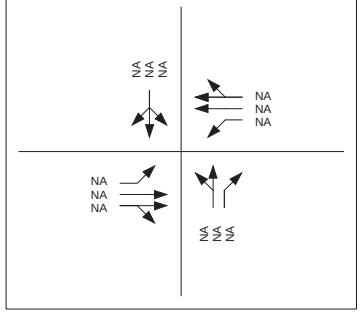
138. Orlando Ave & Beverly Blvd



139. Holloway Dr & Santa Monica Blvd



140. La Cienega Blvd & Sunset Blvd



LEGEND

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- - Yield Controlled
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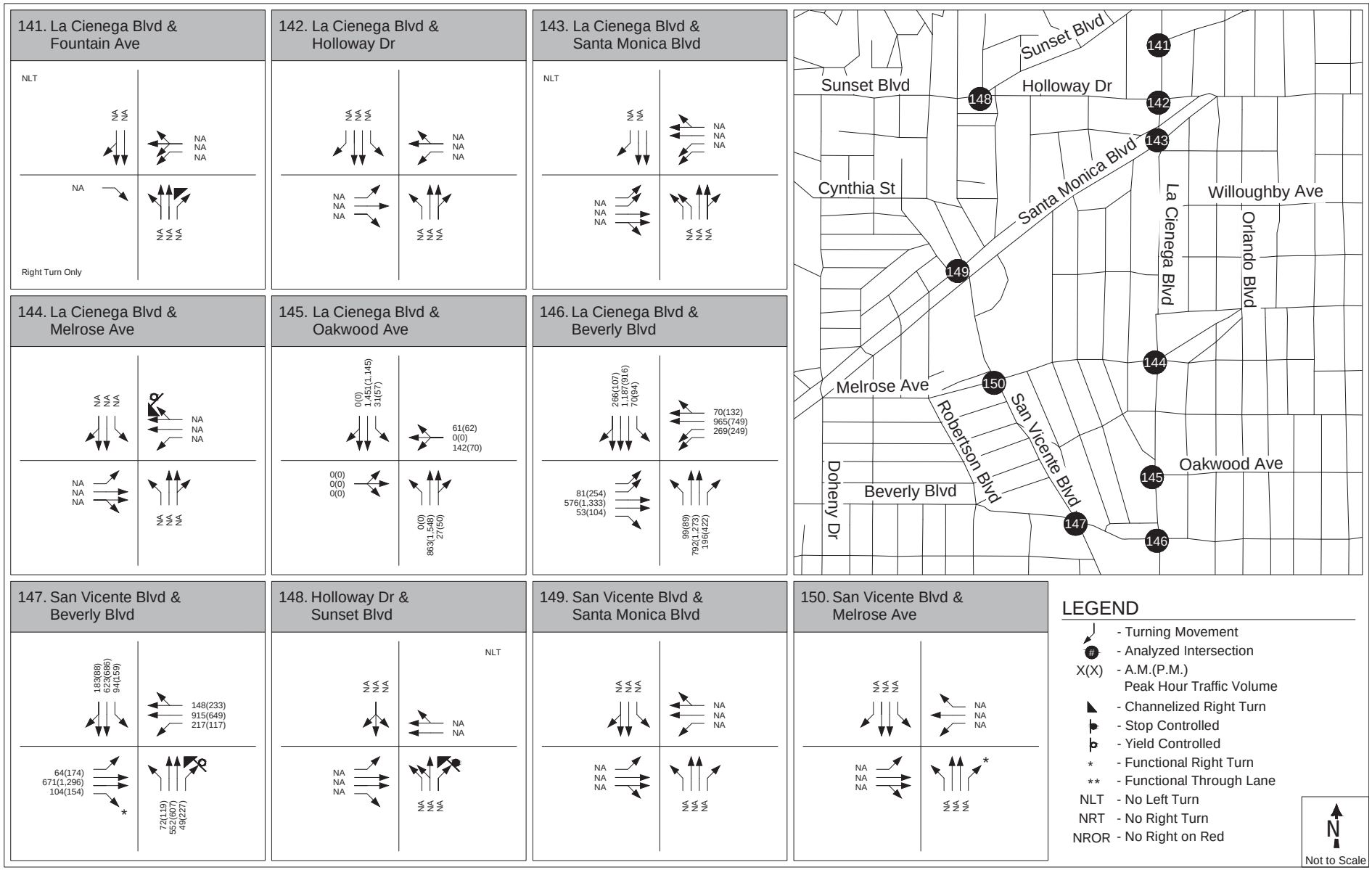
N

Not to Scale

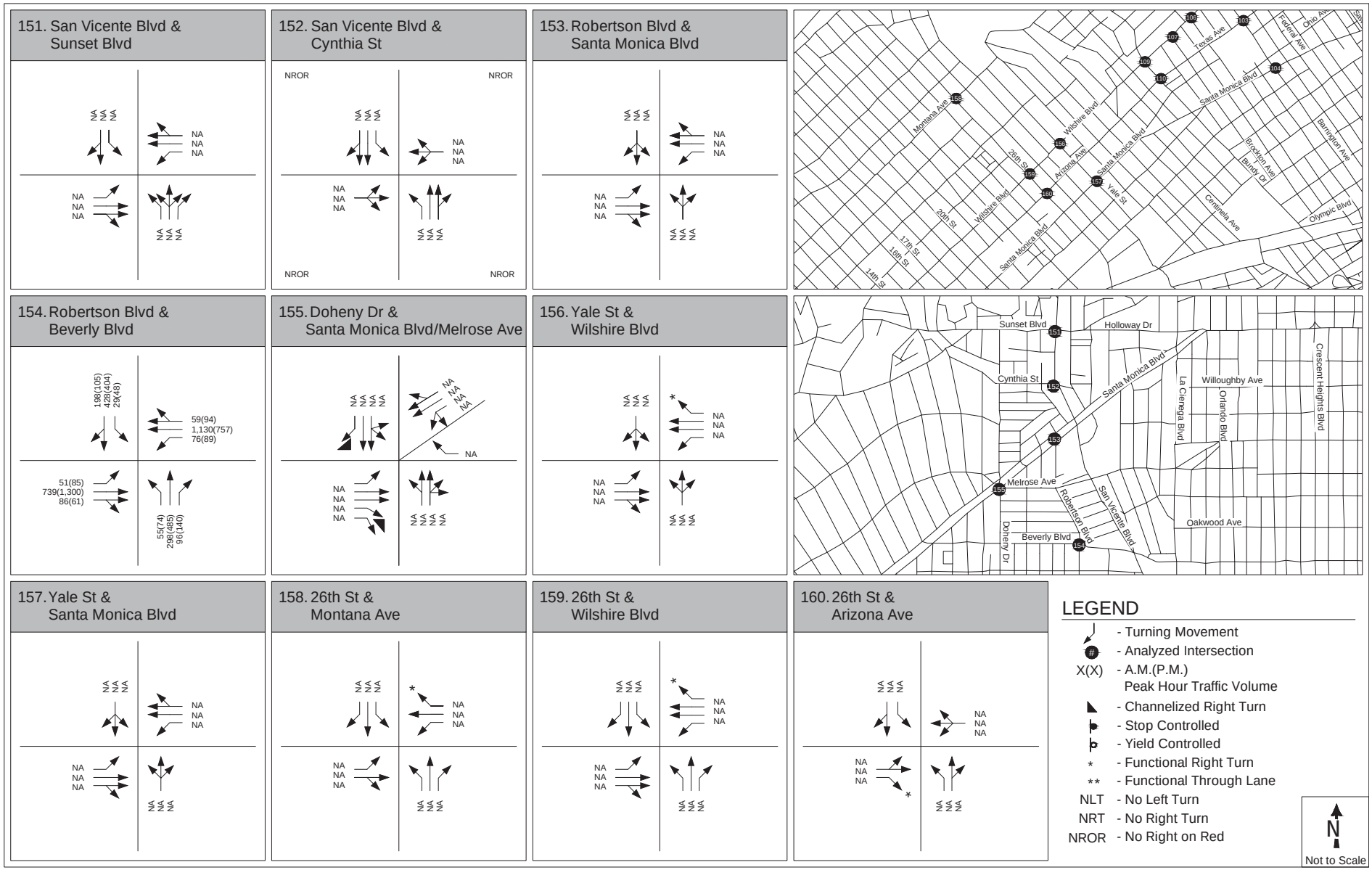
Existing Plus Project Peak Hour Traffic Volumes

Appendix B



Existing Plus Project Peak Hour Traffic Volumes

Appendix B


151. San Vicente Blvd & Sunset Blvd
152. San Vicente Blvd & Cynthia St
NROR
NROR
NROR
NROR
153. Robertson Blvd & Santa Monica Blvd
154. Robertson Blvd & Beverly Blvd
198(105)
428(404)
29(48)
59(94)
1,130(757)
76(89)
51(85)
739(1,300)
86(61)
55(74)
298(485)
96(140)
155. Doheny Dr & Santa Monica Blvd/Melrose Ave
156. Yale St & Wilshire Blvd
Sunset Blvd
Holloway Dr
Cynthia St
Santa Monica Blvd
Willoughby Ave
La Cienega Blvd
Orlando Blvd
Crescent Heights Blvd
Melrose Ave
Roberston Blvd
San Vicente Blvd
Oakwood Ave
Beverly Blvd
Doheny Dr
157. Yale St & Santa Monica Blvd
158. 26th St & Montana Ave
159. 26th St & Wilshire Blvd
160. 26th St & Arizona Ave
Montana Ave
Wilshire Blvd
26th St
Arizona Ave
Santa Monica Blvd
Yale St
20th St
17th St
16th St
14th St
Texas Ave
Federal Ave
Ohio Ave
Bundy Dr
Brockton Ave
Barrington Ave
Centinela Ave
Olympic Blvd
LEGEND
- Turning Movement
- Analyzed Intersection
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- Yield Controlled
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NLT - No Left Turn
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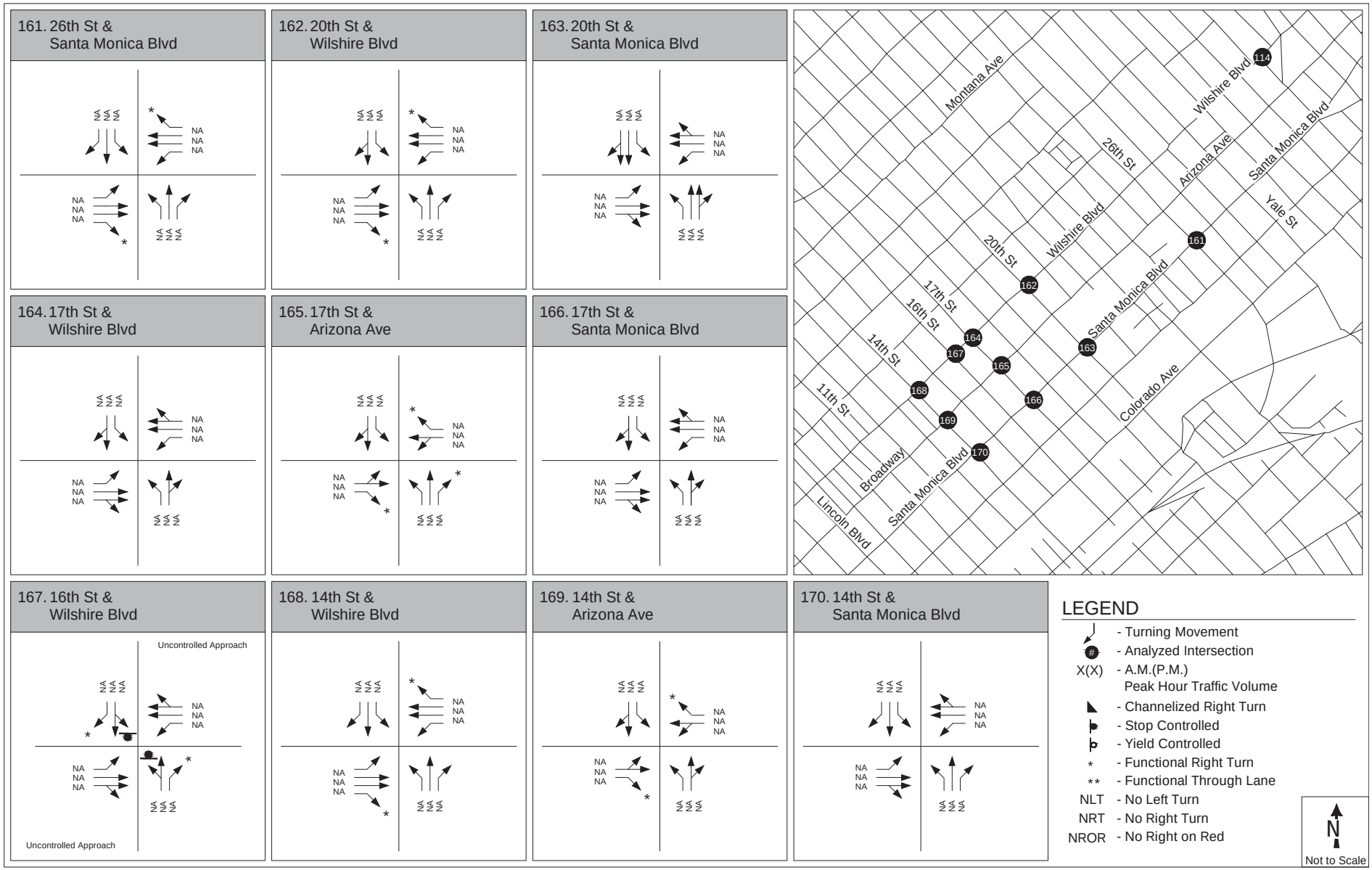
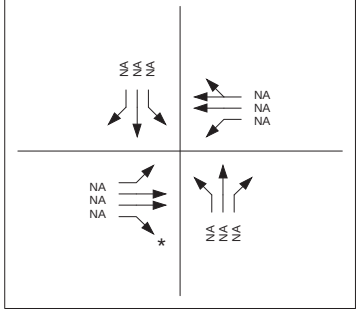
Not to Scale



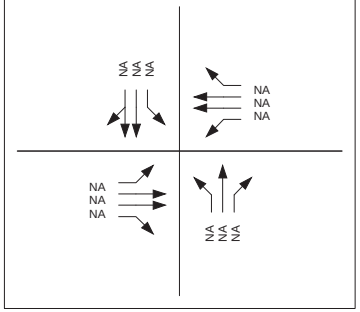
Existing Plus Project Peak Hour Traffic Volumes

Appendix B

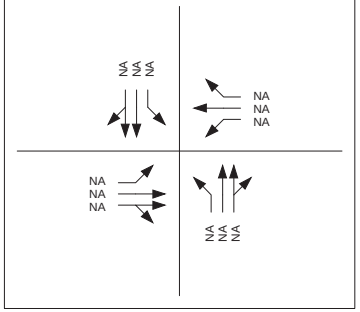
171. 11th St & Wilshire Blvd

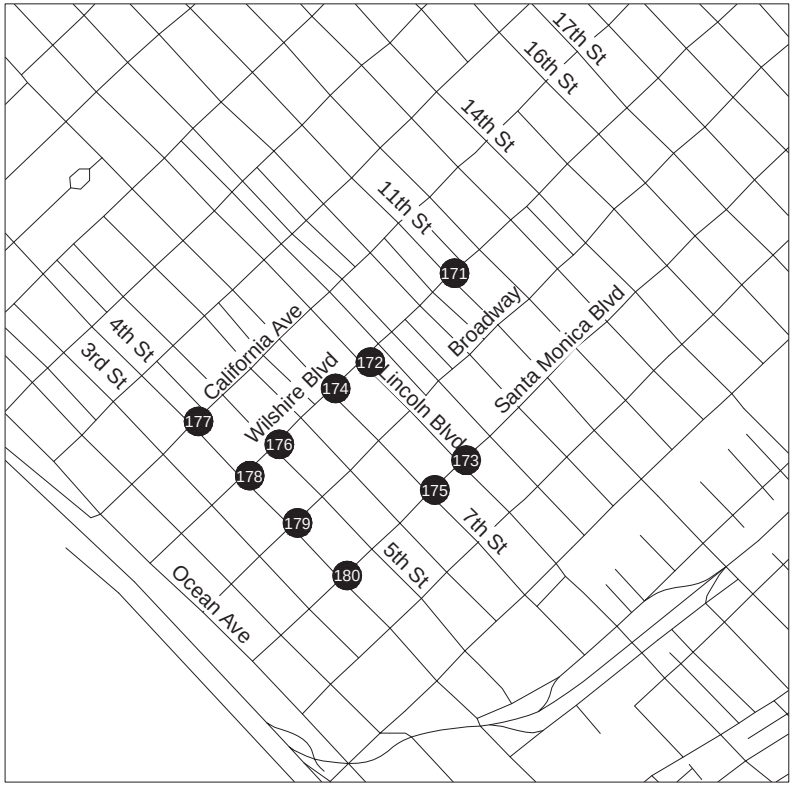


172. Lincoln Blvd & Wilshire Blvd

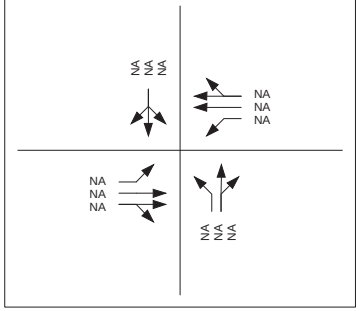


173. Lincoln Blvd & Santa Monica Blvd

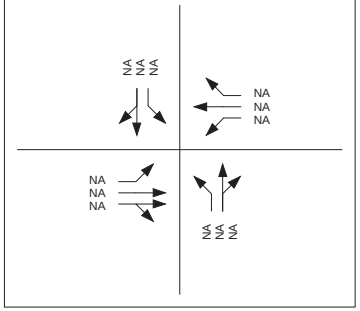




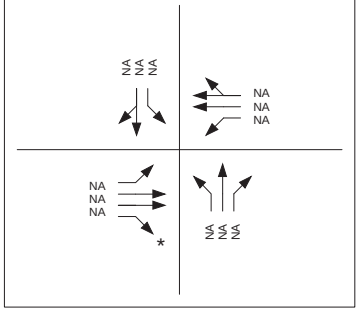
174. 7th St & Wilshire Blvd



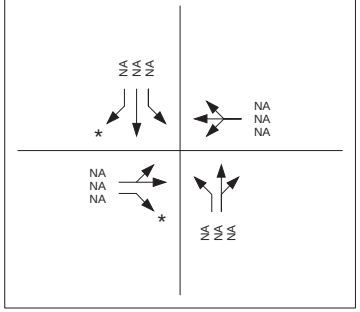
175. 7th St & Santa Monica Blvd



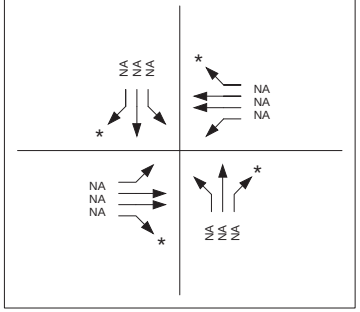
176. 5th St & Wilshire Blvd



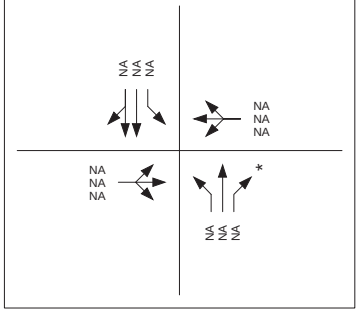
177. 4th St & California Ave



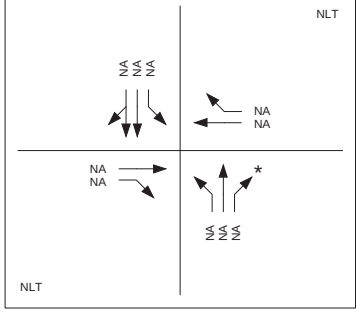
178. 4th St & Wilshire Blvd



179. 4th St & Arizona Ave



180. 4th St & Santa Monica Blvd



LEGEND

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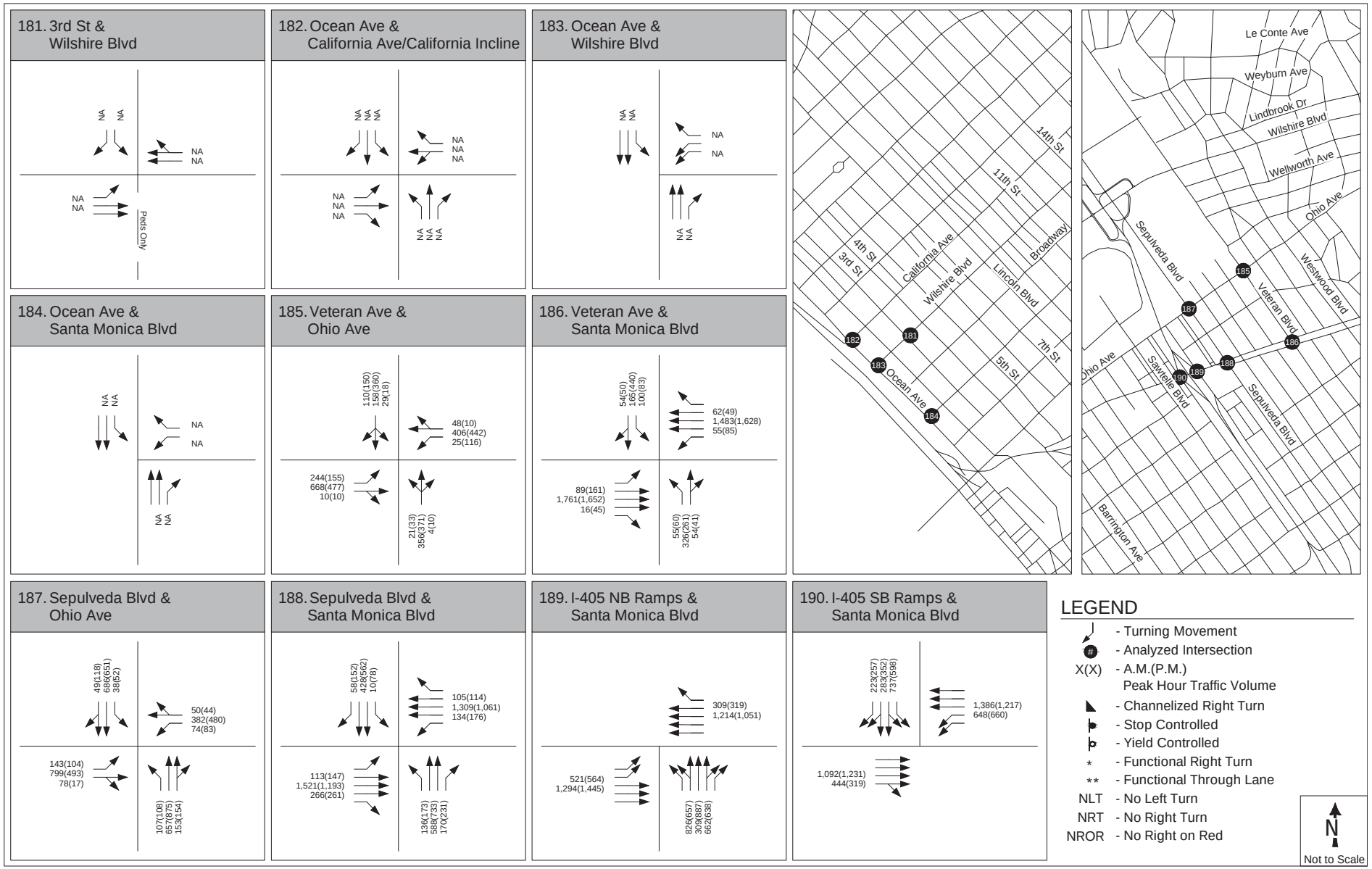
N

Not to Scale

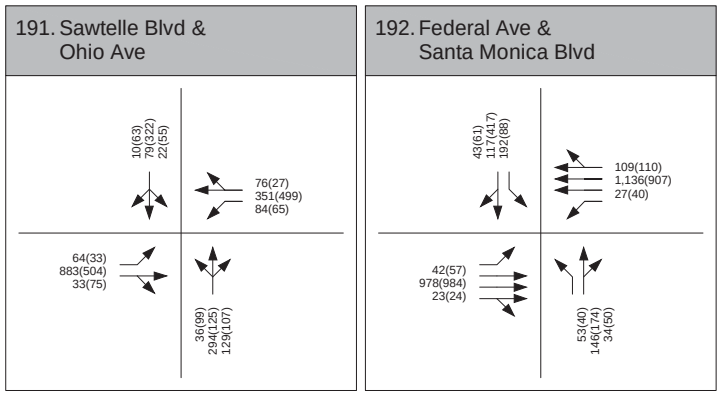
Existing Plus Project Peak Hour Traffic Volumes

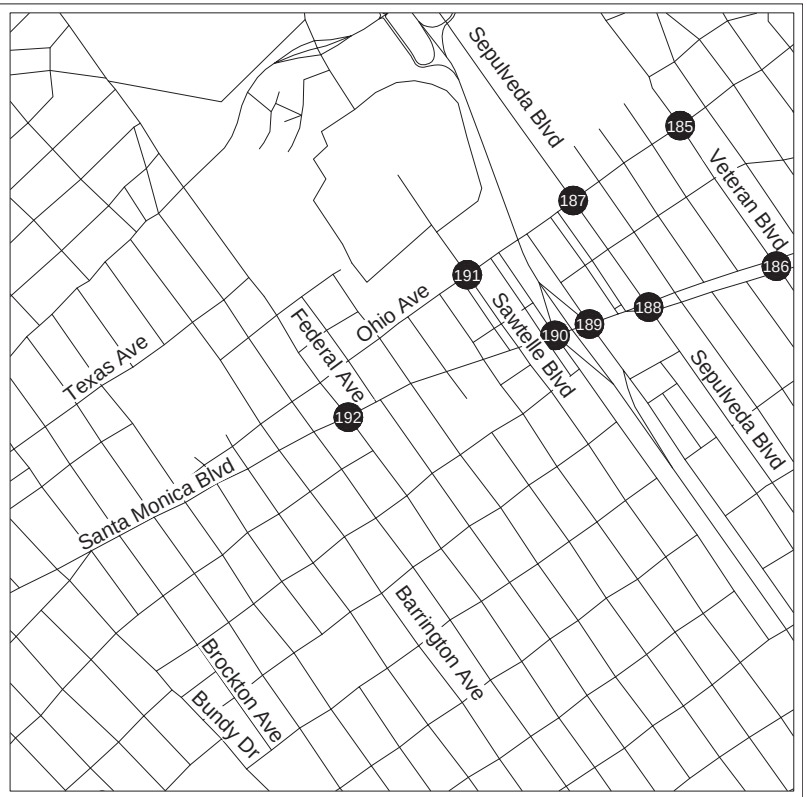
Appendix B



Existing Plus Project Peak Hour Traffic Volumes

Appendix B





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Not to Scale

Existing Plus Project Peak Hour Traffic Volumes

Appendix B

Appendix C LEVEL-OF-SERVICE WORKSHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			0.95	1.00		0.95	1.00
Frt	1.00	0.98		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	1.00
Satd. Flow (prot)	1583	4474		1583	4541			3158	1417		3146	1417
Flt Permitted	0.13	1.00		0.95	1.00			0.87	1.00		0.70	1.00
Satd. Flow (perm)	215	4474		1583	4541			2754	1417		2208	1417
Volume (vph)	28	1351	168	103	1538	21	37	616	117	104	669	134
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	29	1422	177	108	1619	22	39	648	123	109	704	141
RTOR Reduction (vph)	0	17	0	0	2	0	0	0	70	0	0	6
Lane Group Flow (vph)	29	1582	0	108	1639	0	0	687	53	0	813	135
Turn Type	Perm			Prot			Perm		Perm	Perm		Perm
Protected Phases		6		5	2			8			4	
Permitted Phases	6						8		8	4		4
Actuated Green, G (s)	31.0	31.0		8.0	43.0			38.5	38.5		38.5	38.5
Effective Green, g (s)	31.0	31.0		8.0	43.0			39.0	39.0		39.0	39.0
Actuated g/C Ratio	0.34	0.34		0.09	0.48			0.43	0.43		0.43	0.43
Clearance Time (s)	4.0	4.0		4.0	4.0			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	74	1541		141	2170			1193	614		957	614
v/s Ratio Prot		c0.35		0.07	c0.36							
v/s Ratio Perm	0.13							0.25	0.04		c0.37	0.10
v/c Ratio	0.39	1.03		0.77	0.76			0.58	0.09		0.85	0.22
Uniform Delay, d1	22.4	29.5		40.1	19.2			19.3	15.0		22.9	16.0
Progression Factor	1.35	1.38		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	13.2	28.6		21.6	2.5			2.0	0.3		9.3	0.8
Delay (s)	43.4	69.3		61.7	21.7			21.3	15.3		32.2	16.8
Level of Service	D	E		E	C			C	B		C	B
Approach Delay (s)		68.8			24.2			20.4			29.9	
Approach LOS		E			C			C			C	

Intersection Summary			
HCM Average Control Delay	38.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		0.95			0.95			0.95			0.95	1.00
Frpb, ped/bikes		0.99			0.99			0.99			1.00	0.83
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.99			0.99			1.00	0.85
Flt Protected		1.00			1.00			1.00			1.00	1.00
Satd. Flow (prot)		3118			3109			3123			3167	1171
Flt Permitted		1.00			1.00			1.00			1.00	1.00
Satd. Flow (perm)		3118			3109			3123			3167	1171
Volume (vph)	0	836	59	0	895	51	0	904	47	0	1083	98
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	844	60	0	904	52	0	913	47	0	1094	99
RTOR Reduction (vph)	0	6	0	0	4	0	0	4	0	0	0	26
Lane Group Flow (vph)	0	898	0	0	952	0	0	956	0	0	1094	73
Confl. Peds. (#/hr)	76		47	47		76	70		83	83		70
Confl. Bikes (#/hr)			7			7			12			9
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)		40.2			40.2			40.2			40.2	40.2
Effective Green, g (s)		41.0			41.0			41.0			41.0	41.0
Actuated g/C Ratio		0.46			0.46			0.46			0.46	0.46
Clearance Time (s)		4.8			4.8			4.8			4.8	4.8
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1420			1416			1423			1443	533
v/s Ratio Prot		0.29			c0.31			0.31			c0.35	
v/s Ratio Perm												0.06
v/c Ratio		0.63			0.67			0.67			0.76	0.14
Uniform Delay, d1		18.7			19.2			19.2			20.4	14.2
Progression Factor		1.00			1.00			0.64			1.00	1.00
Incremental Delay, d2		2.2			2.6			1.6			3.8	0.5
Delay (s)		20.9			21.8			13.8			24.2	14.8
Level of Service		C			C			B			C	B
Approach Delay (s)		20.9			21.8			13.8			23.4	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		0.99	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1578	4499		1578	4461		1580	3054		1574	3015	
Flt Permitted	0.13	1.00		0.16	1.00		0.13	1.00		0.15	1.00	
Satd. Flow (perm)	219	4499		259	4461		223	3054		243	3015	
Volume (vph)	64	945	31	69	1125	43	82	733	59	131	834	134
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	69	1016	33	74	1210	46	88	788	63	141	897	144
RTOR Reduction (vph)	0	4	0	0	5	0	0	7	0	0	14	0
Lane Group Flow (vph)	69	1045	0	74	1251	0	88	844	0	141	1027	0
Confl. Peds. (#/hr)	529		124	124		529	153		349	349		153
Confl. Bikes (#/hr)			4			6			8			9
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	34.7	29.0		34.9	29.1		35.0	28.6		38.2	30.2	
Effective Green, g (s)	36.1	30.4		36.3	30.5		36.2	29.8		39.4	31.4	
Actuated g/C Ratio	0.40	0.34		0.40	0.34		0.40	0.33		0.44	0.35	
Clearance Time (s)	4.0	5.4		4.0	5.4		4.0	5.2		4.0	5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	174	1520		189	1512		186	1011		225	1052	
v/s Ratio Prot	0.03	0.23		c0.03	c0.28		0.03	0.28		c0.06	c0.34	
v/s Ratio Perm	0.13			0.13			0.16			0.22		
v/c Ratio	0.40	0.69		0.39	0.83		0.47	0.84		0.63	0.98	
Uniform Delay, d1	18.6	25.7		17.8	27.3		19.6	27.8		17.9	28.9	
Progression Factor	1.30	0.66		0.40	0.62		1.23	1.35		1.72	1.58	
Incremental Delay, d2	1.1	1.9		0.9	3.8		1.4	6.3		3.6	17.6	
Delay (s)	25.3	18.8		8.1	20.7		25.4	43.7		34.5	63.5	
Level of Service	C	B		A	C		C	D		C	E	
Approach Delay (s)		19.2			20.0			42.0			60.0	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM Average Control Delay	34.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3132		1583	3136		1583	3149		1583	3152	
Flt Permitted	0.40	1.00		0.33	1.00		0.12	1.00		0.18	1.00	
Satd. Flow (perm)	675	3132		557	3136		192	3149		294	3152	
Volume (vph)	49	531	42	64	434	30	34	849	33	58	1008	33
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	55	597	47	72	488	34	38	954	37	65	1133	37
RTOR Reduction (vph)	0	7	0	0	5	0	0	3	0	0	3	0
Lane Group Flow (vph)	55	637	0	72	517	0	38	988	0	65	1167	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	40.4	40.4		40.4	40.4		40.3	40.3		40.3	40.3	
Effective Green, g (s)	41.0	41.0		41.0	41.0		41.0	41.0		41.0	41.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.6	4.6		4.6	4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	308	1427		254	1429		87	1435		134	1436	
v/s Ratio Prot		c0.20			0.16			0.31			c0.37	
v/s Ratio Perm	0.08			0.13			0.20			0.22		
v/c Ratio	0.18	0.45		0.28	0.36		0.44	0.69		0.49	0.81	
Uniform Delay, d1	14.5	16.7		15.3	16.0		16.7	19.4		17.1	21.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.58	0.51	
Incremental Delay, d2	1.3	1.0		2.8	0.7		15.1	2.7		7.9	3.4	
Delay (s)	15.8	17.8		18.1	16.7		31.8	22.1		17.8	14.2	
Level of Service	B	B		B	B		C	C		B	B	
Approach Delay (s)		17.6			16.9			22.5			14.4	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4537		1583	4512		1583	3167	1417	1583	3167	1417
Flt Permitted	0.11	1.00		0.11	1.00		0.14	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	186	4537		192	4512		225	3167	1417	300	3167	1417
Volume (vph)	69	1519	29	75	1362	80	113	786	67	118	875	151
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	71	1566	30	77	1404	82	116	810	69	122	902	156
RTOR Reduction (vph)	0	2	0	0	7	0	0	0	41	0	0	40
Lane Group Flow (vph)	71	1594	0	77	1479	0	116	810	28	122	902	116
Turn Type	pm+pt			pm+pt			pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	1	6		5	2		3	8	5	7	4	1
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	42.2	34.9		40.0	33.8		40.9	33.2	39.4	40.9	33.2	40.5
Effective Green, g (s)	43.2	35.9		41.0	34.8		41.9	34.2	40.4	41.9	34.2	41.5
Actuated g/C Ratio	0.43	0.36		0.41	0.35		0.42	0.34	0.40	0.42	0.34	0.42
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0	4.0	4.0	5.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	182	1629		165	1570		199	1083	629	224	1083	645
v/s Ratio Prot	0.03	c0.35		c0.03	0.33		c0.04	0.26	0.00	0.04	c0.28	0.01
v/s Ratio Perm	0.14			0.16			0.20		0.02	0.19		0.07
v/c Ratio	0.39	0.98		0.47	0.94		0.58	0.75	0.04	0.54	0.83	0.18
Uniform Delay, d1	20.5	31.7		22.0	31.6		20.7	29.1	18.1	20.0	30.3	18.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	17.8		2.1	12.6		4.3	4.7	0.0	2.7	7.5	0.1
Delay (s)	21.9	49.4		24.1	44.2		25.0	33.8	18.1	22.7	37.8	18.6
Level of Service	C	D		C	D		C	C	B	C	D	B
Approach Delay (s)		48.3			43.2			31.7			33.7	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4499		1583	4535		1583	3128		1583	3086	
Flt Permitted	0.11	1.00		0.12	1.00		0.11	1.00		0.14	1.00	
Satd. Flow (perm)	178	4499		198	4535		175	3128		234	3086	
Volume (vph)	102	1242	101	119	1373	30	113	906	80	67	981	201
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	107	1307	106	125	1445	32	119	954	84	71	1033	212
RTOR Reduction (vph)	0	10	0	0	3	0	0	8	0	0	12	0
Lane Group Flow (vph)	107	1403	0	125	1474	0	119	1030	0	71	1233	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	43.5	43.5		43.5	43.5		37.5	37.5		37.5	37.5	
Effective Green, g (s)	44.0	44.0		44.0	44.0		38.0	38.0		38.0	38.0	
Actuated g/C Ratio	0.49	0.49		0.49	0.49		0.42	0.42		0.42	0.42	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	87	2200		97	2217		74	1321		99	1303	
v/s Ratio Prot		0.31			0.33			0.33			0.40	
v/s Ratio Perm	0.60			c0.63			c0.68			0.30		
v/c Ratio	1.23	0.64		1.29	0.67		1.61	0.78		0.72	0.95	
Uniform Delay, d1	23.0	17.1		23.0	17.4		26.0	22.4		21.5	25.0	
Progression Factor	1.57	1.57		1.33	1.40		1.00	1.00		1.00	1.00	
Incremental Delay, d2	163.2	1.2		173.1	1.1		327.4	4.6		35.9	15.1	
Delay (s)	199.2	28.1		203.6	25.4		353.4	27.0		57.5	40.1	
Level of Service	F	C		F	C		F	C		E	D	
Approach Delay (s)		40.2			39.3			60.6			41.0	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM Average Control Delay	44.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		1.00	
Satd. Flow (prot)	1583	4528		1583	4541			1638	1417		1575	
Flt Permitted	0.07	1.00		0.11	1.00			0.65	1.00		0.97	
Satd. Flow (perm)	109	4528		184	4541			1087	1417		1537	
Volume (vph)	30	1282	42	62	1712	23	65	121	123	13	108	75
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	38	1623	53	78	2167	29	82	153	156	16	137	95
RTOR Reduction (vph)	0	3	0	0	1	0	0	0	18	0	5	0
Lane Group Flow (vph)	38	1673	0	78	2195	0	0	235	138	0	243	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	61.0	61.0		61.0	61.0			20.5	20.5		20.5	
Effective Green, g (s)	61.0	61.0		61.0	61.0			21.0	21.0		21.0	
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.23	0.23		0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	74	3069		125	3078			254	331		359	
v/s Ratio Prot		0.37			c0.48							
v/s Ratio Perm	0.35			0.43				c0.22	0.10		0.16	
v/c Ratio	0.51	0.55		0.62	0.71			0.93	0.42		0.68	
Uniform Delay, d1	7.2	7.4		8.1	9.0			33.7	29.3		31.4	
Progression Factor	1.00	1.00		1.32	1.34			1.00	1.00		1.00	
Incremental Delay, d2	23.2	0.7		17.5	1.2			36.6	0.8		5.0	
Delay (s)	30.4	8.1		28.1	13.2			70.3	30.1		36.4	
Level of Service	C	A		C	B			E	C		D	
Approach Delay (s)		8.6			13.7			54.3			36.4	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	0.91
Frpb, ped/bikes	0.96		1.00	1.00	1.00	0.89
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4228		1582	4550	3070	1153
Flt Permitted	1.00		0.11	1.00	0.95	1.00
Satd. Flow (perm)	4228		180	4550	3070	1153
Volume (vph)	1005	302	397	1330	730	374
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1047	315	414	1385	760	390
RTOR Reduction (vph)	58	0	0	0	1	9
Lane Group Flow (vph)	1304	0	414	1385	767	373
Confl. Peds. (#/hr)		153	153			100
Confl. Bikes (#/hr)						2
Turn Type			pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases			2			4
Actuated Green, G (s)	39.6		52.6	52.6	27.7	36.7
Effective Green, g (s)	40.6		53.6	53.6	28.4	37.4
Actuated g/C Ratio	0.45		0.60	0.60	0.32	0.42
Clearance Time (s)	5.0		4.0	5.0	4.7	4.0
Vehicle Extension (s)	3.0		2.0	3.0	2.0	2.0
Lane Grp Cap (vph)	1907		247	2710	969	530
v/s Ratio Prot	0.31		c0.17	0.30	c0.25	0.07
v/s Ratio Perm			c0.83			0.25
v/c Ratio	0.68		1.68	0.51	0.79	0.70
Uniform Delay, d1	19.6		21.1	10.6	28.1	21.7
Progression Factor	1.00		1.00	1.00	0.41	0.31
Incremental Delay, d2	2.0		321.4	0.7	3.6	2.9
Delay (s)	21.6		342.5	11.3	15.2	9.7
Level of Service	C		F	B	B	A
Approach Delay (s)	21.6			87.5	13.3	
Approach LOS	C			F	B	

Intersection Summary			
HCM Average Control Delay	46.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	2981		1583	1667	1417	1583	3107		1583	3162	
Flt Permitted	0.62	1.00		0.61	1.00	1.00	0.37	1.00		0.19	1.00	
Satd. Flow (perm)	1027	2981		1015	1667	1417	614	3107		309	3162	
Volume (vph)	7	128	82	240	146	105	25	965	139	26	628	7
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	133	85	250	152	109	26	1005	145	27	654	7
RTOR Reduction (vph)	0	0	0	0	0	76	0	12	0	0	1	0
Lane Group Flow (vph)	7	218	0	250	152	33	26	1138	0	27	660	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	26.4	26.4		26.4	26.4	26.4	54.3	54.3		54.3	54.3	
Effective Green, g (s)	27.0	27.0		27.0	27.0	27.0	55.0	55.0		55.0	55.0	
Actuated g/C Ratio	0.30	0.30		0.30	0.30	0.30	0.61	0.61		0.61	0.61	
Clearance Time (s)	4.6	4.6		4.6	4.6	4.6	4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	308	894		305	500	425	375	1899		189	1932	
v/s Ratio Prot		0.07			0.09			c0.37			0.21	
v/s Ratio Perm	0.01			c0.25		0.02	0.04			0.09		
v/c Ratio	0.02	0.24		0.82	0.30	0.08	0.07	0.60		0.14	0.34	
Uniform Delay, d1	22.2	23.8		29.2	24.3	22.6	7.1	10.7		7.5	8.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.92	1.78		0.19	0.25	
Incremental Delay, d2	0.1	0.6		21.3	1.6	0.4	0.0	0.1		0.1	0.0	
Delay (s)	22.3	24.4		50.5	25.8	22.9	6.6	19.2		1.5	2.2	
Level of Service	C	C		D	C	C	A	B		A	A	
Approach Delay (s)		24.4			37.3			18.9			2.2	
Approach LOS		C			D			B			A	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4530		1583	4524		1583	3133		1583	3167	1417
Flt Permitted	0.15	1.00		0.95	1.00		0.13	1.00		0.15	1.00	1.00
Satd. Flow (perm)	248	4530		1583	4524		220	3133		253	3167	1417
Volume (vph)	54	1141	34	140	2164	86	160	979	74	53	881	123
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	59	1254	37	154	2378	95	176	1076	81	58	968	135
RTOR Reduction (vph)	0	4	0	0	5	0	0	6	0	0	0	96
Lane Group Flow (vph)	59	1287	0	154	2468	0	176	1151	0	58	968	39
Turn Type	pm+pt			Prot			pm+pt			pm+pt		Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2						4			8		8
Actuated Green, G (s)	31.3	26.0		11.1	30.9		39.5	29.6		31.2	25.3	25.3
Effective Green, g (s)	32.6	26.9		10.6	31.8		40.5	30.6		32.2	26.3	26.3
Actuated g/C Ratio	0.36	0.30		0.12	0.35		0.45	0.34		0.36	0.29	0.29
Clearance Time (s)	4.4	4.9		3.5	4.9		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	174	1354		186	1598		253	1065		178	925	414
v/s Ratio Prot	0.02	0.28		c0.10	c0.55		c0.08	c0.37		0.02	0.31	
v/s Ratio Perm	0.10						0.23			0.10		0.03
v/c Ratio	0.34	0.95		0.83	1.54		0.70	1.08		0.33	1.05	0.10
Uniform Delay, d1	23.0	30.9		38.8	29.1		19.4	29.7		22.1	31.8	23.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.82	0.79	0.65
Incremental Delay, d2	1.2	15.2		25.1	248.3		8.0	52.1		1.0	41.6	0.4
Delay (s)	24.2	46.1		63.9	277.4		27.4	81.8		19.0	66.9	15.5
Level of Service	C	D		E	F		C	F		B	E	B
Approach Delay (s)		45.2			264.9			74.6			58.5	
Approach LOS		D			F			E			E	

Intersection Summary			
HCM Average Control Delay	142.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	1.00
Satd. Flow (prot)	1583	4516		1583	4526			1610	1417		1631	1417
Flt Permitted	0.08	1.00		0.15	1.00			0.97	1.00		0.98	1.00
Satd. Flow (perm)	142	4516		245	4526			1610	1417		1631	1417
Volume (vph)	20	1218	64	10	1817	66	142	58	20	34	44	10
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	21	1256	66	10	1873	68	146	60	21	35	45	10
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	16	0	0	9
Lane Group Flow (vph)	21	1322	0	10	1937	0	0	206	5	0	80	1
Turn Type	Perm			Perm			Split		Perm	Split		Perm
Protected Phases		6			2		4	4		3	3	
Permitted Phases	6			2					4			3
Actuated Green, G (s)	45.2	45.2		45.2	45.2			19.0	19.0		8.9	8.9
Effective Green, g (s)	47.1	47.1		47.1	47.1			20.5	20.5		10.4	10.4
Actuated g/C Ratio	0.52	0.52		0.52	0.52			0.23	0.23		0.12	0.12
Clearance Time (s)	5.9	5.9		5.9	5.9			5.5	5.5		5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	74	2363		128	2369			367	323		188	164
v/s Ratio Prot		0.29			c0.43			c0.13			c0.05	
v/s Ratio Perm	0.15			0.04					0.00			0.00
v/c Ratio	0.28	0.56		0.08	0.82			0.56	0.01		0.43	0.01
Uniform Delay, d1	12.0	14.5		10.7	17.9			30.8	26.9		37.0	35.2
Progression Factor	0.46	0.49		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	8.2	0.8		1.2	3.3			2.0	0.0		1.6	0.0
Delay (s)	13.7	7.9		11.8	21.1			32.7	26.9		38.6	35.2
Level of Service	B	A		B	C			C	C		D	D
Approach Delay (s)		8.0			21.1			32.2			38.2	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)	1583	4550		1583	4447			1571			1589	1417
Flt Permitted	0.09	1.00		0.24	1.00			0.98			0.95	1.00
Satd. Flow (perm)	146	4550		396	4447			1571			1589	1417
Volume (vph)	90	959	0	16	1618	288	22	15	14	324	8	326
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	92	979	0	16	1651	294	22	15	14	331	8	333
RTOR Reduction (vph)	0	0	0	0	26	0	0	13	0	0	0	130
Lane Group Flow (vph)	92	979	0	16	1919	0	0	38	0	0	339	203
Turn Type	Perm			Perm			Split			Split		Perm
Protected Phases		6			2		3	3		4	4	
Permitted Phases	6			2								4
Actuated Green, G (s)	44.3	44.3		44.3	44.3			7.5			22.3	22.3
Effective Green, g (s)	45.8	45.8		45.8	45.8			8.9			23.3	23.3
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.10			0.26	0.26
Clearance Time (s)	5.5	5.5		5.5	5.5			5.4			5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	74	2315		202	2263			155			411	367
v/s Ratio Prot		0.22			0.43			c0.02			c0.21	
v/s Ratio Perm	c0.63			0.04								0.14
v/c Ratio	1.24	0.42		0.08	0.85			0.25			0.82	0.55
Uniform Delay, d1	22.1	13.8		11.3	19.1			37.5			31.4	28.8
Progression Factor	1.00	1.00		1.44	1.08			1.00			1.00	1.00
Incremental Delay, d2	183.6	0.6		0.4	2.5			0.8			12.7	1.8
Delay (s)	205.7	14.4		16.8	23.1			38.3			44.1	30.6
Level of Service	F	B		B	C			D			D	C
Approach Delay (s)		30.8			23.0			38.3			37.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00			0.98			0.99	
Flpb, ped/bikes		1.00		0.98	1.00			1.00			1.00	
Frt		1.00		1.00	1.00			0.92			0.95	
Flt Protected		1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)		4264		1461	4260			1403			1472	
Flt Permitted		1.00		0.25	1.00			0.97			0.98	
Satd. Flow (perm)		4264		388	4260			1369			1444	
Volume (vph)	0	969	16	42	1576	37	7	16	36	9	56	38
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1031	17	45	1677	39	7	17	38	10	60	40
RTOR Reduction (vph)	0	1	0	0	2	0	0	32	0	0	16	0
Lane Group Flow (vph)	0	1047	0	45	1714	0	0	30	0	0	94	0
Confl. Peds. (#/hr)	25		36	36		25	8		5	5		8
Confl. Bikes (#/hr)			5			4						
Turn Type				Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		67.6		67.6	67.6			14.9			14.9	
Effective Green, g (s)		67.1		67.1	67.1			14.9			14.9	
Actuated g/C Ratio		0.75		0.75	0.75			0.17			0.17	
Clearance Time (s)		3.5		3.5	3.5			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		3179		289	3176			227			239	
v/s Ratio Prot		0.25			c0.40							
v/s Ratio Perm				0.12				0.02			c0.07	
v/c Ratio		0.33		0.16	0.54			0.13			0.39	
Uniform Delay, d1		3.9		3.3	4.9			32.0			33.5	
Progression Factor		0.26		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.2		1.1	0.7			0.3			1.1	
Delay (s)		1.2		4.4	5.5			32.3			34.6	
Level of Service		A		A	A			C			C	
Approach Delay (s)		1.2			5.5			32.3			34.6	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2973		1490	4242		1490	4201	
Flt Permitted	0.13	1.00	1.00	0.18	1.00		0.13	1.00		0.13	1.00	
Satd. Flow (perm)	206	2980	1333	279	2973		203	4242		209	4201	
Volume (vph)	72	762	86	160	1459	26	90	1048	69	105	1673	241
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	76	802	91	168	1536	27	95	1103	73	111	1761	254
RTOR Reduction (vph)	0	0	29	0	1	0	0	8	0	0	21	0
Lane Group Flow (vph)	76	802	62	168	1562	0	95	1168	0	111	1994	0
Turn Type	pm+pt		pm+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)	35.1	29.5	36.0	37.9	30.9		36.4	29.9		34.6	29.0	
Effective Green, g (s)	36.1	30.5	37.0	38.9	31.9		37.4	30.9		35.6	30.0	
Actuated g/C Ratio	0.40	0.34	0.41	0.43	0.35		0.42	0.34		0.40	0.33	
Clearance Time (s)	4.0	5.0	4.0	4.0	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	4.8	3.0	3.0	4.6		3.0	4.3		3.0	5.5	
Lane Grp Cap (vph)	163	1010	607	215	1054		177	1456		162	1400	
v/s Ratio Prot	0.03	0.27	0.01	c0.06	c0.53		0.04	0.28		c0.04	c0.47	
v/s Ratio Perm	0.16		0.04	0.28			0.18			0.23		
v/c Ratio	0.47	0.79	0.10	0.78	1.48		0.54	0.80		0.69	1.42	
Uniform Delay, d1	22.2	26.9	16.3	18.3	29.1		41.4	26.8		19.2	30.0	
Progression Factor	0.58	0.73	0.78	1.00	1.00		1.49	0.33		1.67	1.46	
Incremental Delay, d2	1.6	5.0	0.1	16.7	221.9		1.8	2.8		7.9	193.9	
Delay (s)	14.4	24.7	12.7	35.0	250.9		63.6	11.7		40.0	237.8	
Level of Service	B	C	B	C	F		E	B		D	F	
Approach Delay (s)		22.7			230.0			15.6			227.5	
Approach LOS		C			F			B			F	

Intersection Summary			
HCM Average Control Delay	151.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	117.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2969		1490	4250		1490	4278	
Flt Permitted	0.11	1.00	1.00	0.16	1.00		0.10	1.00		0.10	1.00	
Satd. Flow (perm)	179	2980	1333	246	2969		161	4250		164	4278	
Volume (vph)	91	883	93	132	1276	34	102	1305	69	99	1596	10
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	93	901	95	135	1302	35	104	1332	70	101	1629	10
RTOR Reduction (vph)	0	0	20	0	2	0	0	6	0	0	1	0
Lane Group Flow (vph)	93	901	75	135	1335	0	104	1396	0	101	1638	0
Turn Type	Perm		Perm	pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)	34.0	34.0	34.0	42.0	42.0		38.0	38.0		38.0	38.0	
Effective Green, g (s)	35.0	35.0	35.0	43.0	43.0		39.0	39.0		39.0	39.0	
Actuated g/C Ratio	0.39	0.39	0.39	0.48	0.48		0.43	0.43		0.43	0.43	
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	70	1159	518	173	1419		70	1842		71	1854	
v/s Ratio Prot		0.30		0.03	c0.45			0.33			0.38	
v/s Ratio Perm	c0.52		0.06	0.34			c0.65			0.62		
v/c Ratio	1.33	0.78	0.14	0.78	0.94		1.49	0.76		1.42	0.88	
Uniform Delay, d1	27.5	24.1	17.8	18.6	22.3		25.5	21.5		25.5	23.4	
Progression Factor	0.93	0.92	0.74	1.00	1.00		1.00	1.00		1.98	2.04	
Incremental Delay, d2	209.0	4.3	0.5	20.0	13.4		280.0	3.0		197.5	0.7	
Delay (s)	234.6	26.5	13.7	38.6	35.7		305.5	24.5		248.1	48.5	
Level of Service	F	C	B	D	D		F	C		F	D	
Approach Delay (s)		43.1			36.0			43.9			60.1	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	46.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	110.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.91		1.00	0.91	
Frt		0.97			0.99		1.00	1.00		1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2898			2955		1490	4264		1490	4236	
Flt Permitted		1.00			1.00		0.17	1.00		0.17	1.00	
Satd. Flow (perm)		2898			2955		266	4264		266	4236	
Volume (vph)	0	578	131	0	1069	65	59	1373	41	105	1552	122
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	584	132	0	1080	66	60	1387	41	106	1568	123
RTOR Reduction (vph)	0	1	0	0	2	0	0	5	0	0	13	0
Lane Group Flow (vph)	0	715	0	0	1144	0	60	1423	0	106	1678	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		27.5			27.5		22.9	22.9		22.9	22.9	
Effective Green, g (s)		28.4			28.4		23.6	23.6		23.6	23.6	
Actuated g/C Ratio		0.47			0.47		0.39	0.39		0.39	0.39	
Clearance Time (s)		4.9			4.9		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1372			1399		105	1677		105	1666	
v/s Ratio Prot		0.25			c0.39			0.33			0.40	
v/s Ratio Perm							0.23			c0.40		
v/c Ratio		0.52			0.82		0.57	0.85		1.01	1.01	
Uniform Delay, d1		11.0			13.6		14.2	16.6		18.2	18.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			3.8		20.6	5.6		90.4	23.8	
Delay (s)		11.4			17.4		34.9	22.1		108.6	42.0	
Level of Service		B			B		C	C		F	D	
Approach Delay (s)		11.4			17.4			22.7			45.9	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1489	4189		1485	4218		1489	4217		1490	4137	
Flt Permitted	0.14	1.00		0.17	1.00		0.13	1.00		0.95	1.00	
Satd. Flow (perm)	216	4189		262	4218		202	4217		1490	4137	
Volume (vph)	122	908	72	152	1341	79	125	1195	86	110	1307	196
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	123	917	73	154	1355	80	126	1207	87	111	1320	198
RTOR Reduction (vph)	0	10	0	0	7	0	0	9	0	0	22	0
Lane Group Flow (vph)	123	980	0	154	1428	0	126	1285	0	111	1496	0
Confl. Peds. (#/hr)	96		120	120		96	89		58	58		89
Confl. Bikes (#/hr)			8			5			3			4
Turn Type	pm+pt			pm+pt			pm+pt			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8					
Actuated Green, G (s)	36.4	29.0		36.6	29.1		38.3	31.0		7.5	31.2	
Effective Green, g (s)	35.9	29.0		36.1	29.1		37.8	31.0		7.0	31.2	
Actuated g/C Ratio	0.40	0.32		0.40	0.32		0.42	0.34		0.08	0.35	
Clearance Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	184	1350		200	1364		182	1453		116	1434	
v/s Ratio Prot	0.05	0.23		c0.06	c0.34		0.05	0.30		c0.07	c0.36	
v/s Ratio Perm	0.22			0.25			0.24					
v/c Ratio	0.67	0.73		0.77	1.05		0.69	0.88		0.96	1.04	
Uniform Delay, d1	20.6	27.0		19.1	30.4		19.8	27.8		41.3	29.4	
Progression Factor	1.48	0.78		1.30	0.83		1.72	0.71		1.00	1.00	
Incremental Delay, d2	8.7	3.4		14.4	35.8		9.5	7.3		68.9	35.8	
Delay (s)	39.3	24.5		39.2	61.0		43.6	27.0		110.2	65.2	
Level of Service	D	C		D	E		D	C		F	E	
Approach Delay (s)		26.2			58.9			28.5			68.3	
Approach LOS		C			E			C			E	

Intersection Summary			
HCM Average Control Delay	47.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.98		1.00	1.00		1.00	1.00	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1456			1517		1484	4266		1486	4258	
Flt Permitted		0.90			0.90		0.12	1.00		0.15	1.00	
Satd. Flow (perm)		1322			1384		184	4266		240	4258	
Volume (vph)	39	58	57	49	123	23	91	1330	26	9	1500	48
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	40	60	59	51	127	24	94	1371	27	9	1546	49
RTOR Reduction (vph)	0	8	0	0	7	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	151	0	0	195	0	94	1397	0	9	1593	0
Confl. Peds. (#/hr)	6		10	10		6	21		10	10		5
Confl. Bikes (#/hr)			2			2			2			
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		23.0			23.0		57.5	57.5		57.5	57.5	
Effective Green, g (s)		24.0			24.0		58.0	58.0		58.0	58.0	
Actuated g/C Ratio		0.27			0.27		0.64	0.64		0.64	0.64	
Clearance Time (s)		5.0			5.0		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		353			369		119	2749		155	2744	
v/s Ratio Prot								0.33			0.37	
v/s Ratio Perm		0.11			c0.14		c0.51			0.04		
v/c Ratio		0.43			0.53		0.79	0.51		0.06	0.58	
Uniform Delay, d1		27.3			28.2		11.6	8.5		5.9	9.1	
Progression Factor		1.00			1.00		1.00	1.00		0.56	0.50	
Incremental Delay, d2		0.8			1.4		40.0	0.7		0.2	0.3	
Delay (s)		28.1			29.5		51.6	9.1		3.5	4.8	
Level of Service		C			C		D	A		A	A	
Approach Delay (s)		28.1			29.5			11.8			4.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4251		1490	4250		1490	4269		1490	4209	
Flt Permitted	0.12	1.00		0.11	1.00		0.95	1.00		0.13	1.00	
Satd. Flow (perm)	188	4251		168	4250		1490	4269		199	4209	
Volume (vph)	52	1065	55	94	1372	72	113	1328	27	119	1440	186
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	1133	59	100	1460	77	120	1413	29	127	1532	198
RTOR Reduction (vph)	0	5	0	0	5	0	0	2	0	0	16	0
Lane Group Flow (vph)	55	1187	0	100	1532	0	120	1440	0	127	1714	0
Turn Type	Perm			pm+pt			Prot			pm+pt		
Protected Phases		8		7	4		5			1	6	
Permitted Phases	8			4				2		6		
Actuated Green, G (s)	31.9	31.9		43.8	43.8		11.3	30.2		41.3	30.1	
Effective Green, g (s)	33.3	33.3		45.2	45.2		11.3	31.6		42.7	31.5	
Actuated g/C Ratio	0.33	0.33		0.45	0.45		0.11	0.32		0.43	0.32	
Clearance Time (s)	5.4	5.4		4.0	5.4		4.0	5.4		4.0	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		4.0	3.0	
Lane Grp Cap (vph)	63	1416		180	1921		168	1349		230	1326	
v/s Ratio Prot		0.28		0.04	c0.36		c0.08			0.06	c0.41	
v/s Ratio Perm	c0.29			0.21				0.34		0.17		
v/c Ratio	0.87	0.84		0.56	0.80		0.71	1.07		0.55	1.29	
Uniform Delay, d1	31.4	30.9		19.2	23.5		42.8	34.2		21.4	34.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	81.2	6.1		3.7	3.5		13.4	44.7		3.5	137.3	
Delay (s)	112.5	36.9		22.8	27.0		56.2	78.9		24.9	171.5	
Level of Service	F	D		C	C		E	E		C	F	
Approach Delay (s)		40.3			26.8			77.1			161.5	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM Average Control Delay	81.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91			0.91			1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00			0.98			1.00	0.96		0.98	
Flpb, ped/bikes	0.97	1.00			1.00			0.99	1.00		0.99	
Frt	1.00	1.00			0.99			1.00	0.85		0.94	
Flt Protected	0.95	1.00			1.00			0.98	1.00		0.99	
Satd. Flow (prot)	1443	4251			4179			1532	1286		1420	
Flt Permitted	0.13	1.00			1.00			0.92	1.00		0.92	
Satd. Flow (perm)	193	4251			4179			1428	1286		1328	
Volume (vph)	51	854	21	0	1504	71	11	22	34	22	22	36
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	53	880	22	0	1551	73	11	23	35	23	23	37
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	29	0	12	0
Lane Group Flow (vph)	53	900	0	0	1621	0	0	34	6	0	71	0
Confl. Peds. (#/hr)	151		56	56		151	25		19	19		25
Confl. Bikes (#/hr)			4			7			1			1
Turn Type	Perm						Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6						8		8	4		
Actuated Green, G (s)	68.0	68.0			68.0			14.5	14.5		14.5	
Effective Green, g (s)	67.5	67.5			67.5			14.5	14.5		14.5	
Actuated g/C Ratio	0.75	0.75			0.75			0.16	0.16		0.16	
Clearance Time (s)	3.5	3.5			3.5			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	145	3188			3134			230	207		214	
v/s Ratio Prot		0.21			c0.39							
v/s Ratio Perm	0.27							0.02	0.00		c0.05	
v/c Ratio	0.37	0.28			0.52			0.15	0.03		0.33	
Uniform Delay, d1	3.9	3.6			4.6			32.4	31.8		33.5	
Progression Factor	1.55	1.25			0.31			1.00	1.00		1.00	
Incremental Delay, d2	6.1	0.2			0.1			0.3	0.1		0.9	
Delay (s)	12.1	4.6			1.5			32.7	31.9		34.4	
Level of Service	B	A			A			C	C		C	
Approach Delay (s)		5.1			1.5			32.3			34.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.86	0.86		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.93			0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			0.99	
Satd. Flow (prot)	1583	4541		1583	4300	1218		1547			1561	
Flt Permitted	0.10	1.00		0.23	1.00	1.00		0.90			0.87	
Satd. Flow (perm)	166	4541		378	4300	1218		1400			1362	
Volume (vph)	46	895	12	63	1322	125	26	138	167	68	255	243
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	53	1029	14	72	1520	144	30	159	192	78	293	279
RTOR Reduction (vph)	0	1	0	0	0	64	0	41	0	0	17	0
Lane Group Flow (vph)	53	1042	0	72	1520	80	0	340	0	0	633	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2		2	8			4		
Actuated Green, G (s)	50.0	50.0		50.0	50.0	50.0		32.0			32.0	
Effective Green, g (s)	50.0	50.0		50.0	50.0	50.0		32.0			32.0	
Actuated g/C Ratio	0.56	0.56		0.56	0.56	0.56		0.36			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	92	2523		210	2389	677		498			484	
v/s Ratio Prot		0.23			c0.35							
v/s Ratio Perm	0.32			0.19		0.07		0.24			c0.46	
v/c Ratio	0.58	0.41		0.34	0.64	0.12		0.68			1.31	
Uniform Delay, d1	13.1	11.5		11.0	13.7	9.5		24.7			29.0	
Progression Factor	1.86	1.95		0.63	0.75	0.56		1.00			1.00	
Incremental Delay, d2	23.1	0.5		4.0	1.2	0.3		3.9			152.5	
Delay (s)	47.4	23.0		10.8	11.4	5.7		28.6			181.5	
Level of Service	D	C		B	B	A		C			F	
Approach Delay (s)		24.2			10.9			28.6			181.5	
Approach LOS		C			B			C			F	

Intersection Summary			
HCM Average Control Delay	45.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	0.99		1.00	1.00	0.94	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4527		1583	4550	1529	
Flt Permitted	1.00		0.27	1.00	0.97	
Satd. Flow (perm)	4527		446	4550	1529	
Volume (vph)	869	30	106	1690	44	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	915	32	112	1779	46	32
RTOR Reduction (vph)	3	0	0	0	23	0
Lane Group Flow (vph)	944	0	112	1779	55	0
Turn Type			Perm			
Protected Phases	6			2	8	
Permitted Phases			2			
Actuated Green, G (s)	54.8		54.8	54.8	26.0	
Effective Green, g (s)	55.3		55.3	55.3	26.7	
Actuated g/C Ratio	0.61		0.61	0.61	0.30	
Clearance Time (s)	4.5		4.5	4.5	4.7	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2782		274	2796	454	
v/s Ratio Prot	0.21			c0.39	c0.04	
v/s Ratio Perm			0.25			
v/c Ratio	0.34		0.41	0.64	0.12	
Uniform Delay, d1	8.5		8.9	11.0	23.1	
Progression Factor	1.00		1.45	1.55	1.00	
Incremental Delay, d2	0.3		3.1	0.8	0.1	
Delay (s)	8.8		16.0	17.8	23.2	
Level of Service	A		B	B	C	
Approach Delay (s)	8.8			17.7	23.2	
Approach LOS	A			B	C	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	3167	1417	1583	3167	1417	1583	3098	
Flt Permitted	0.12	1.00	1.00	0.17	1.00	1.00	0.14	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	208	3167	1417	279	3167	1417	238	3167	1417	399	3098	
Volume (vph)	59	807	98	226	1350	109	73	606	118	96	1098	184
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	60	823	100	231	1378	111	74	618	120	98	1120	188
RTOR Reduction (vph)	0	0	37	0	0	34	0	0	83	0	14	0
Lane Group Flow (vph)	60	823	63	231	1378	77	74	618	37	98	1294	0
Turn Type	Perm		Perm	pm+pt		pm+ov	Perm		Perm	pm+pt		
Protected Phases		6		5	2	7		8		7	4	
Permitted Phases	6		6	2		2	8		8	4		
Actuated Green, G (s)	31.0	31.0	31.0	43.0	43.0	48.7	28.1	28.1	28.1	37.0	37.0	
Effective Green, g (s)	32.0	32.0	32.0	44.0	44.0	50.0	28.0	28.0	28.0	38.0	38.0	
Actuated g/C Ratio	0.36	0.36	0.36	0.49	0.49	0.56	0.31	0.31	0.31	0.42	0.42	
Clearance Time (s)	5.0	5.0	5.0	3.2	5.0	4.3	3.9	3.9	3.9	4.3	5.0	
Vehicle Extension (s)	4.7	4.7	4.7	3.0	4.2	3.0	4.3	4.3	4.3	3.0	4.5	
Lane Grp Cap (vph)	74	1126	504	252	1548	850	74	985	441	247	1308	
v/s Ratio Prot		0.26		0.08	c0.44	0.01		0.20		0.03	c0.42	
v/s Ratio Perm	0.29		0.04	c0.37		0.05	0.31		0.03	0.14		
v/c Ratio	0.81	0.73	0.12	0.92	0.89	0.09	1.00	0.63	0.08	0.40	0.99	
Uniform Delay, d1	26.3	25.3	19.6	16.9	20.8	9.4	31.0	26.5	21.9	17.2	25.8	
Progression Factor	1.00	1.00	1.00	1.86	0.30	0.05	0.52	0.46	0.16	0.31	0.48	
Incremental Delay, d2	60.8	4.2	0.5	5.3	0.8	0.0	79.5	1.8	0.2	0.7	17.8	
Delay (s)	87.1	29.4	20.1	36.7	7.2	0.5	95.6	14.0	3.7	6.1	30.3	
Level of Service	F	C	C	D	A	A	F	B	A	A	C	
Approach Delay (s)		32.0			10.7			19.9			28.6	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3145		1583	3167	1417	1583	3096		1583	3128	
Flt Permitted	0.11	1.00		0.31	1.00	1.00	0.14	1.00		0.12	1.00	
Satd. Flow (perm)	187	3145		515	3167	1417	235	3096		206	3128	
Volume (vph)	92	537	25	241	1337	143	61	725	127	154	1085	95
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	102	597	28	268	1486	159	68	806	141	171	1206	106
RTOR Reduction (vph)	0	4	0	0	0	45	0	16	0	0	8	0
Lane Group Flow (vph)	102	621	0	268	1486	114	68	931	0	171	1304	0
Turn Type	pm+pt			pm+pt		pm+ov	Perm			pm+pt		
Protected Phases	1	6		5	2	7		8		7	4	
Permitted Phases	6			2		2	8			4		
Actuated Green, G (s)	38.3	33.7		40.7	34.9	40.7	26.5	26.5		35.5	35.5	
Effective Green, g (s)	39.4	35.6		41.8	36.8	41.8	28.4	28.4		37.4	37.4	
Actuated g/C Ratio	0.44	0.40		0.46	0.41	0.46	0.32	0.32		0.42	0.42	
Clearance Time (s)	3.2	5.9		3.2	5.9	3.2	5.9	5.9		3.2	5.9	
Vehicle Extension (s)	3.0	4.6		3.0	4.7	3.0	4.7	4.7		3.0	4.7	
Lane Grp Cap (vph)	141	1244		299	1295	721	74	977		162	1300	
v/s Ratio Prot	0.03	0.20		c0.05	c0.47	0.01		0.30		0.06	c0.42	
v/s Ratio Perm	0.29			0.37		0.07	0.29			c0.38		
v/c Ratio	0.72	0.50		0.90	1.15	0.16	0.92	0.95		1.06	1.00	
Uniform Delay, d1	22.2	20.5		21.7	26.6	13.9	29.7	30.1		24.0	26.3	
Progression Factor	1.00	1.00		0.75	0.84	0.74	0.83	0.82		0.86	0.56	
Incremental Delay, d2	16.7	1.4		20.1	73.0	0.1	82.7	19.2		60.6	16.8	
Delay (s)	39.0	21.9		36.3	95.4	10.4	107.4	44.0		81.3	31.6	
Level of Service	D	C		D	F	B	F	D		F	C	
Approach Delay (s)		24.3			80.1			48.2			37.3	
Approach LOS		C			F			D			D	

Intersection Summary			
HCM Average Control Delay	53.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94	1.00	1.00	0.91	1.00	0.99	
Flpb, ped/bikes	0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1544	1658		3072	1667	1337	1583	3167	1287	1534	3108	
Flt Permitted	0.51	1.00		0.95	1.00	1.00	0.11	1.00	1.00	0.36	1.00	
Satd. Flow (perm)	834	1658		3072	1667	1337	179	3167	1287	583	3108	
Volume (vph)	16	238	8	181	411	87	10	608	49	29	1185	79
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	17	248	8	189	428	91	10	633	51	30	1234	82
RTOR Reduction (vph)	0	2	0	0	0	56	0	0	0	0	5	0
Lane Group Flow (vph)	17	254	0	189	428	35	10	633	51	30	1311	0
Confl. Peds. (#/hr)	28		6	6		28	43		36	36		43
Confl. Bikes (#/hr)			4			1			5			7
Turn Type	Perm			Prot		Perm	Perm		pm+ov	Perm		
Protected Phases		8		7	4			6	7		2	
Permitted Phases	8					4	6		6	2		
Actuated Green, G (s)	20.2	20.2		10.0	34.2	34.2	46.2	46.2	56.2	46.2	46.2	
Effective Green, g (s)	21.0	21.0		10.0	35.0	35.0	47.0	47.0	57.0	47.0	47.0	
Actuated g/C Ratio	0.23	0.23		0.11	0.39	0.39	0.52	0.52	0.63	0.52	0.52	
Clearance Time (s)	4.8	4.8		4.0	4.8	4.8	4.8	4.8	4.0	4.8	4.8	
Vehicle Extension (s)	5.9	5.9		3.0	5.2	5.2	4.8	4.8	3.0	4.4	4.4	
Lane Grp Cap (vph)	195	387		341	648	520	93	1654	872	304	1623	
v/s Ratio Prot		0.15		0.06	c0.26			0.20	0.01		c0.42	
v/s Ratio Perm	0.02					0.03	0.06		0.03	0.05		
v/c Ratio	0.09	0.66		0.55	0.66	0.07	0.11	0.38	0.06	0.10	0.81	
Uniform Delay, d1	27.0	31.2		37.9	22.6	17.3	10.9	12.8	6.3	10.8	17.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.36	0.49	
Incremental Delay, d2	0.9	8.5		2.0	5.2	0.3	2.3	0.7	0.0	0.2	1.4	
Delay (s)	27.9	39.7		39.8	27.8	17.5	13.2	13.5	6.3	4.1	10.0	
Level of Service	C	D		D	C	B	B	B	A	A	B	
Approach Delay (s)		39.0			29.7			13.0			9.9	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.98		1.00	0.97		1.00	1.00	0.83
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4486		1566	4446		1583	3040		1583	3167	1177
Flt Permitted	0.14	1.00		0.25	1.00		0.13	1.00		0.95	1.00	1.00
Satd. Flow (perm)	236	4486		415	4446		220	3040		1583	3167	1177
Volume (vph)	71	678	29	141	1378	71	279	858	75	140	1360	188
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	76	721	31	150	1466	76	297	913	80	149	1447	200
RTOR Reduction (vph)	0	5	0	0	6	0	0	7	0	0	0	110
Lane Group Flow (vph)	76	747	0	150	1536	0	297	986	0	149	1447	90
Confl. Peds. (#/hr)	227		147	147		227	145		184	184		145
Confl. Bikes (#/hr)			2			6			8			6
Turn Type	pm+pt			pm+pt			pm+pt			Prot		Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8					4
Actuated Green, G (s)	32.2	27.2		34.8	28.5		37.1	29.3		11.3	32.8	32.8
Effective Green, g (s)	32.4	28.2		35.0	29.5		37.3	30.3		10.5	33.8	33.8
Actuated g/C Ratio	0.36	0.31		0.39	0.33		0.41	0.33		0.12	0.37	0.37
Clearance Time (s)	3.2	5.0		3.2	5.0		3.2	5.0		3.2	5.0	5.0
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	147	1398		230	1449		196	1018		184	1183	440
v/s Ratio Prot	0.02	0.17		c0.04	c0.35		c0.12	0.32		0.09	c0.46	
v/s Ratio Perm	0.16			0.21			c0.51					0.08
v/c Ratio	0.52	0.53		0.65	1.06		1.52	0.97		0.81	1.22	0.20
Uniform Delay, d1	22.6	25.7		19.8	30.5		24.1	29.6		39.0	28.4	19.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.1	1.5		6.5	41.3		256.3	21.5		22.4	108.2	1.0
Delay (s)	25.7	27.2		26.3	71.8		280.4	51.1		61.5	136.5	20.3
Level of Service	C	C		C	E		F	D		E	F	C
Approach Delay (s)		27.1			67.8			103.9			117.3	
Approach LOS		C			E			F			F	

Intersection Summary			
HCM Average Control Delay	86.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)			4.0	4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor			1.00	0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00	0.98	0.97		0.99		1.00	1.00	
Flpb, ped/bikes			1.00	1.00	1.00	1.00		1.00		0.99	1.00	
Frt			0.86	1.00	0.90	0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1412	1502	1312	1303		3066		1571	3167	
Flt Permitted			1.00	0.95	0.98	1.00		1.00		0.20	1.00	
Satd. Flow (perm)			1412	1502	1312	1303		3066		334	3167	
Volume (vph)	0	0	18	156	0	232	0	896	148	58	1065	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	19	164	0	244	0	943	156	61	1121	0
RTOR Reduction (vph)	0	0	18	0	76	115	0	12	0	0	0	0
Lane Group Flow (vph)	0	0	1	117	68	32	0	1087	0	61	1121	0
Confl. Peds. (#/hr)	11		1	1		11	8		23	23		8
Confl. Bikes (#/hr)						5			5			1
Turn Type			custom	Perm		Perm				Perm		
Protected Phases					3			2			2	
Permitted Phases			4	3		3				2		
Actuated Green, G (s)			2.2	18.4	18.4	18.4		55.0		55.0	55.0	
Effective Green, g (s)			3.1	19.3	19.3	19.3		55.6		55.6	55.6	
Actuated g/C Ratio			0.03	0.21	0.21	0.21		0.62		0.62	0.62	
Clearance Time (s)			4.9	4.9	4.9	4.9		4.6		4.6	4.6	
Vehicle Extension (s)			3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)			49	322	281	279		1894		206	1957	
v/s Ratio Prot								c0.35			0.35	
v/s Ratio Perm			c0.00	c0.08	0.05	0.02				0.18		
v/c Ratio			0.01	0.36	0.24	0.11		0.57		0.30	0.57	
Uniform Delay, d1			42.0	30.1	29.3	28.5		10.2		8.0	10.2	
Progression Factor			1.00	1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2			0.1	0.7	0.4	0.2		1.3		3.6	1.2	
Delay (s)			42.1	30.8	29.7	28.6		11.5		11.7	11.4	
Level of Service			D	C	C	C		B		B	B	
Approach Delay (s)		42.1			29.6			11.5			11.4	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		0.91			0.91		1.00	0.86			0.86	
Frt		0.98			0.96		1.00	1.00			1.00	
Flt Protected		1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)		4470			4389		1583	5733			5733	
Flt Permitted		1.00			1.00		0.24	1.00			1.00	
Satd. Flow (perm)		4470			4389		407	5733			5733	
Volume (vph)	0	1090	146	0	1595	494	156	1069	0	0	744	0
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	1101	147	0	1611	499	158	1080	0	0	752	0
RTOR Reduction (vph)	0	17	0	0	55	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1231	0	0	2055	0	158	1080	0	0	752	0
Turn Type							Perm					
Protected Phases		6			6			2			2	
Permitted Phases							2					
Actuated Green, G (s)		22.1			22.1		24.5	24.5			24.5	
Effective Green, g (s)		23.0			23.0		23.5	23.5			23.5	
Actuated g/C Ratio		0.23			0.23		0.24	0.24			0.24	
Clearance Time (s)		4.9			4.9		3.0	3.0			3.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1028			1009		96	1347			1347	
v/s Ratio Prot		0.28			c0.47			0.19			0.13	
v/s Ratio Perm							c0.39					
v/c Ratio		1.20			2.04		1.65	0.80			0.56	
Uniform Delay, d1		38.5			38.5		38.2	36.1			33.7	
Progression Factor		0.68			1.00		1.00	1.00			0.31	
Incremental Delay, d2		89.8			469.8		332.4	5.1			1.4	
Delay (s)		115.9			508.3		370.7	41.2			12.0	
Level of Service		F			F		F	D			B	
Approach Delay (s)		115.9			508.3			83.2			12.0	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	248.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	53.5
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86	1.00		0.91	1.00		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		1.00	0.85		1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00		1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1583	5733	1417		4550	1417		3166		1583	3140	
Flt Permitted	0.17	1.00	1.00		1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)	284	5733	1417		4550	1417		3166		1583	3140	
Volume (vph)	96	615	40	0	1457	140	0	849	2	85	1098	64
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	99	634	41	0	1502	144	0	875	2	88	1132	66
RTOR Reduction (vph)	0	0	31	0	0	104	0	0	0	0	4	0
Lane Group Flow (vph)	99	634	10	0	1502	40	0	877	0	88	1194	0
Turn Type	Perm		Perm			Perm				Prot		
Protected Phases		2			2			8		7	4	
Permitted Phases	2		2			2						
Actuated Green, G (s)	24.5	24.5	24.5		24.5	24.5		31.0		5.0	31.0	
Effective Green, g (s)	23.5	23.5	23.5		23.5	23.5		32.5		5.0	32.5	
Actuated g/C Ratio	0.24	0.24	0.24		0.24	0.24		0.32		0.05	0.32	
Clearance Time (s)	3.0	3.0	3.0		3.0	3.0		5.5		4.0	5.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		5.0		3.0	4.0	
Lane Grp Cap (vph)	67	1347	333		1069	333		1029		79	1021	
v/s Ratio Prot		0.11			0.33			0.28		c0.06	c0.38	
v/s Ratio Perm	c0.35		0.01			0.03						
v/c Ratio	1.48	0.47	0.03		1.41	0.12		0.85		1.11	1.17	
Uniform Delay, d1	38.2	32.9	29.5		38.2	30.1		31.5		47.5	33.8	
Progression Factor	1.00	1.00	1.00		0.77	1.18		0.21		1.00	1.00	
Incremental Delay, d2	279.0	1.2	0.2		182.8	0.1		5.2		135.5	86.9	
Delay (s)	317.2	34.1	29.6		212.3	35.6		11.7		183.0	120.7	
Level of Service	F	C	C		F	D		B		F	F	
Approach Delay (s)		70.1			196.8			11.7			124.9	
Approach LOS		E			F			B			F	

Intersection Summary			
HCM Average Control Delay	119.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	39.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95			0.95	
Frt	1.00	1.00		1.00	1.00		1.00	1.00			0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1583	4539		1583	4549		1583	3157			3018	
Flt Permitted	0.17	1.00		0.17	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	290	4539		290	4549		1583	3157			3018	
Volume (vph)	73	1205	20	34	1541	2	55	779	16	0	748	340
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	1230	20	35	1572	2	56	795	16	0	763	347
RTOR Reduction (vph)	0	2	0	0	0	0	0	1	0	0	53	0
Lane Group Flow (vph)	74	1248	0	35	1574	0	56	810	0	0	1057	0
Turn Type	Perm			Perm			Prot					
Protected Phases		6			6		3	8			4	
Permitted Phases	6			6								
Actuated Green, G (s)	22.1	22.1		22.1	22.1		5.0	31.0			31.0	
Effective Green, g (s)	23.0	23.0		23.0	23.0		5.0	32.5			32.5	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.05	0.32			0.32	
Clearance Time (s)	4.9	4.9		4.9	4.9		4.0	5.5			5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0			4.0	
Lane Grp Cap (vph)	67	1044		67	1046		79	1026			981	
v/s Ratio Prot		0.28			c0.35		c0.04	0.26			c0.35	
v/s Ratio Perm	0.26			0.12								
v/c Ratio	1.10	1.20		0.52	1.50		0.71	0.79			1.08	
Uniform Delay, d1	38.5	38.5		33.7	38.5		46.8	30.6			33.8	
Progression Factor	1.00	1.00		0.70	0.69		1.00	1.00			0.26	
Incremental Delay, d2	141.4	97.6		2.6	227.6		25.1	6.2			37.2	
Delay (s)	179.9	136.1		26.3	254.1		71.9	36.8			46.0	
Level of Service	F	F		C	F		E	D			D	
Approach Delay (s)		138.6			249.1			39.1			46.0	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	136.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	39.5
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	3129		1583	3153		1583	3167	1417	1583	3167	1417
Flt Permitted	0.13	1.00		0.21	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	222	3129		351	3153		1583	3167	1417	1583	3167	1417
Volume (vph)	70	667	58	75	1296	40	148	846	119	43	800	114
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	72	688	60	77	1336	41	153	872	123	44	825	118
RTOR Reduction (vph)	0	7	0	0	3	0	0	0	65	0	0	28
Lane Group Flow (vph)	72	741	0	77	1374	0	153	872	58	44	825	90
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		6			2		3	8		7	4	
Permitted Phases	6			2					8			4
Actuated Green, G (s)	29.0	29.0		29.0	29.0		10.0	41.6	41.6	5.4	37.0	37.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		10.0	42.6	42.6	5.4	38.0	38.0
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.11	0.47	0.47	0.06	0.42	0.42
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1043		117	1051		176	1499	671	95	1337	598
v/s Ratio Prot		0.24			c0.44		c0.10	c0.28		0.03	0.26	
v/s Ratio Perm	0.32			0.22					0.04			0.06
v/c Ratio	0.97	0.71		0.66	1.31		0.87	0.58	0.09	0.46	0.62	0.15
Uniform Delay, d1	29.6	26.2		25.6	30.0		39.4	17.2	13.0	40.9	20.3	16.0
Progression Factor	0.60	0.59		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	79.4	2.8		25.4	145.4		33.6	1.7	0.3	3.5	2.1	0.5
Delay (s)	97.0	18.2		51.0	175.4		73.0	18.9	13.3	44.4	22.5	16.6
Level of Service	F	B		D	F		E	B	B	D	C	B
Approach Delay (s)		25.1			168.8			25.5			22.7	
Approach LOS		C			F			C			C	

Intersection Summary			
HCM Average Control Delay	72.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			0.95			0.95	
Frt	1.00	0.99		1.00	1.00			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1583	4484		1583	4533			3056			3062	
Flt Permitted	0.09	1.00		0.26	1.00			1.00			0.78	
Satd. Flow (perm)	152	4484		433	4533			3056			2389	
Volume (vph)	58	759	81	161	1544	40	0	406	123	91	642	169
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	62	816	87	173	1660	43	0	437	132	98	690	182
RTOR Reduction (vph)	0	14	0	0	3	0	0	32	0	0	6	0
Lane Group Flow (vph)	62	889	0	173	1700	0	0	537	0	0	964	0
Turn Type	Perm			Perm						Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2						4		
Actuated Green, G (s)	42.3	42.3		42.3	42.3			36.0			36.0	
Effective Green, g (s)	44.0	44.0		44.0	44.0			38.0			38.0	
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.42			0.42	
Clearance Time (s)	5.7	5.7		5.7	5.7			6.0			6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	74	2192		212	2216			1290			1009	
v/s Ratio Prot		0.20			0.38			0.18				
v/s Ratio Perm	c0.41			0.40							c0.40	
v/c Ratio	0.84	0.41		0.82	0.77			0.42			0.96	
Uniform Delay, d1	19.9	14.7		19.6	18.8			18.2			25.2	
Progression Factor	0.57	0.40		1.00	1.00			1.00			1.00	
Incremental Delay, d2	43.0	0.3		28.1	2.6			0.2			18.4	
Delay (s)	54.3	6.1		47.7	21.4			18.4			43.6	
Level of Service	D	A		D	C			B			D	
Approach Delay (s)		9.2			23.8			18.4			43.6	
Approach LOS		A			C			B			D	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4472		1583	4461		1583	4545		1583	4550	1417
Flt Permitted	0.13	1.00		0.13	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	215	4472		215	4461		1583	4545		1583	4550	1417
Volume (vph)	53	1052	136	9	1270	190	311	1231	9	185	926	186
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	57	1131	146	10	1366	204	334	1324	10	199	996	200
RTOR Reduction (vph)	0	18	0	0	22	0	0	1	0	0	0	18
Lane Group Flow (vph)	57	1259	0	10	1548	0	334	1333	0	199	996	182
Turn Type	Perm			Perm			Prot			Prot		Perm
Protected Phases		4			8		5			1	6	
Permitted Phases	4			8				2				6
Actuated Green, G (s)	29.0	29.0		29.0	29.0		14.0	32.4		13.6	31.0	31.0
Effective Green, g (s)	31.0	31.0		31.0	31.0		15.0	33.4		13.6	32.0	32.0
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.17	0.37		0.15	0.36	0.36
Clearance Time (s)	6.0	6.0		6.0	6.0		5.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		2.0	4.0		2.0	4.0	4.0
Lane Grp Cap (vph)	74	1540		74	1537		264	1687		239	1618	504
v/s Ratio Prot		0.28			c0.35		c0.21			0.13	0.22	
v/s Ratio Perm	0.27			0.05				c0.29				0.13
v/c Ratio	0.77	0.82		0.14	1.01		1.27	0.79		0.83	0.62	0.36
Uniform Delay, d1	26.3	26.9		20.3	29.5		37.5	25.2		37.1	23.9	21.4
Progression Factor	1.00	1.00		0.32	0.46		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	53.7	4.9		2.2	19.4		145.9	3.9		20.5	1.8	2.0
Delay (s)	80.0	31.8		8.7	33.0		183.4	29.0		57.5	25.7	23.4
Level of Service	F	C		A	C		F	C		E	C	C
Approach Delay (s)		33.9			32.9			60.0			29.9	
Approach LOS		C			C			E			C	

Intersection Summary			
HCM Average Control Delay	40.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.96
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	1.00
Satd. Flow (prot)	1570	4528		1560	4509			1589			1657	1364
Flt Permitted	0.12	1.00		0.19	1.00			0.94			0.97	1.00
Satd. Flow (perm)	203	4528		306	4509			1499			1614	1364
Volume (vph)	84	1118	21	26	1385	47	27	155	48	17	200	102
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	93	1242	23	29	1539	52	30	172	53	19	222	113
RTOR Reduction (vph)	0	2	0	0	4	0	0	9	0	0	0	33
Lane Group Flow (vph)	93	1263	0	29	1587	0	0	246	0	0	241	80
Confl. Peds. (#/hr)	47		44	44		47	18		31	31		18
Confl. Bikes (#/hr)			3			2			4			1
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	69.0	69.0		69.0	69.0			25.0			25.0	25.0
Effective Green, g (s)	68.0	68.0		68.0	68.0			24.0			24.0	24.0
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.24			0.24	0.24
Clearance Time (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	138	3079		208	3066			360			387	327
v/s Ratio Prot		0.28			0.35							
v/s Ratio Perm	c0.46			0.09				c0.16			0.15	0.06
v/c Ratio	0.67	0.41		0.14	0.52			0.68			0.62	0.25
Uniform Delay, d1	9.5	7.1		5.7	7.9			34.5			34.0	30.7
Progression Factor	0.70	0.42		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	14.6	0.2		1.4	0.6			10.1			7.4	1.8
Delay (s)	21.2	3.2		7.1	8.5			44.6			41.3	32.5
Level of Service	C	A		A	A			D			D	C
Approach Delay (s)		4.5			8.5			44.6			38.5	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91		0.97	0.91	
Frpb, ped/bikes	1.00	1.00	0.91	1.00	0.99		1.00	0.98		1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3167	1294	1566	3107		3072	4429		3072	4373	
Flt Permitted	0.13	1.00	1.00	0.36	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	224	3167	1294	590	3107		3072	4429		3072	4373	
Volume (vph)	76	341	38	271	1070	85	176	1001	83	60	1289	242
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	371	41	295	1163	92	191	1088	90	65	1401	263
RTOR Reduction (vph)	0	0	31	0	5	0	0	7	0	0	21	0
Lane Group Flow (vph)	83	371	10	295	1250	0	191	1171	0	65	1643	0
Confl. Peds. (#/hr)	63		49	49		63	51		51	51		51
Confl. Bikes (#/hr)			3			3			6			3
Turn Type	pm+pt		Perm	pm+pt			Prot			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2								
Actuated Green, G (s)	37.0	28.3	28.3	46.3	34.6		12.8	52.6		6.7	46.5	
Effective Green, g (s)	37.4	29.7	29.7	47.7	36.0		12.8	53.6		6.7	47.5	
Actuated g/C Ratio	0.31	0.25	0.25	0.40	0.30		0.11	0.45		0.06	0.40	
Clearance Time (s)	3.0	5.4	5.4	3.0	5.4		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	157	784	320	348	932		328	1978		172	1731	
v/s Ratio Prot	0.03	0.12		c0.10	c0.40		0.06	c0.26		0.02	c0.38	
v/s Ratio Perm	0.13		0.01	0.24								
v/c Ratio	0.53	0.47	0.03	0.85	1.34		0.58	0.59		0.38	0.95	
Uniform Delay, d1	33.7	38.5	34.2	29.4	42.0		51.1	25.0		54.6	35.1	
Progression Factor	1.77	0.86	0.51	1.00	1.00		0.82	0.66		1.30	0.39	
Incremental Delay, d2	3.1	0.4	0.0	17.1	160.8		2.4	1.2		0.5	5.3	
Delay (s)	62.6	33.7	17.6	46.5	202.8		44.3	17.8		71.4	18.8	
Level of Service	E	C	B	D	F		D	B		E	B	
Approach Delay (s)		37.2			173.1			21.5			20.8	
Approach LOS		D			F			C			C	

Intersection Summary			
HCM Average Control Delay	68.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00		0.91		1.00	0.86	0.86	1.00		1.00	0.97	
Frt	1.00		0.99		1.00	1.00	0.85	1.00		0.85	1.00	
Flt Protected	0.95		1.00		0.95	1.00	1.00	0.95		1.00	0.95	
Satd. Flow (prot)	1583		4521		1583	4300	1218	1583		1417	3072	
Flt Permitted	0.95		1.00		0.95	1.00	1.00	0.95		1.00	0.95	
Satd. Flow (perm)	1583		4521		1583	4300	1218	1583		1417	3072	
Volume (vph)	1	0	525	23	6	1287	612	16	0	13	465	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	0	565	25	6	1384	658	17	0	14	500	0
RTOR Reduction (vph)	0	0	2	0	0	0	274	0	0	13	0	0
Lane Group Flow (vph)	1	0	588	0	6	1384	384	17	0	1	500	0
Turn Type	Prot				Prot		Perm	Prot		custom	custom	
Protected Phases	5		2		1	6		7				
Permitted Phases							6			7	8	
Actuated Green, G (s)	2.6		70.1		1.4	68.0	68.0	4.6		4.6	22.1	
Effective Green, g (s)	4.5		71.1		3.3	69.9	69.9	5.6		5.6	24.0	
Actuated g/C Ratio	0.04		0.59		0.03	0.58	0.58	0.05		0.05	0.20	
Clearance Time (s)	5.9		5.0		5.9	5.9	5.9	5.0		5.0	5.9	
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	59		2679		44	2505	709	74		66	614	
v/s Ratio Prot	0.00		c0.13		0.00	c0.32		c0.01				
v/s Ratio Perm							0.31			0.00	c0.16	
v/c Ratio	0.02		0.22		0.14	0.55	0.54	0.23		0.01	0.81	
Uniform Delay, d1	55.6		11.5		57.0	15.4	15.3	55.1		54.6	45.9	
Progression Factor	1.09		1.40		1.18	0.79	6.85	1.00		1.00	1.15	
Incremental Delay, d2	0.1		0.1		0.7	0.5	1.5	1.6		0.1	9.7	
Delay (s)	60.7		16.2		67.8	12.6	106.2	56.7		54.6	62.5	
Level of Service	E		B		E	B	F	E		D	E	
Approach Delay (s)			16.3			42.8			55.8			91.0
Approach LOS			B			D			E			F

Intersection Summary			
HCM Average Control Delay	48.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1700
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1417
Flt Permitted	1.00
Satd. Flow (perm)	1417
Volume (vph)	178
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	191
RTOR Reduction (vph)	153
Lane Group Flow (vph)	38
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	22.1
Effective Green, g (s)	24.0
Actuated g/C Ratio	0.20
Clearance Time (s)	5.9
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	283
v/s Ratio Prot	
v/s Ratio Perm	0.03
v/c Ratio	0.13
Uniform Delay, d1	39.5
Progression Factor	4.18
Incremental Delay, d2	0.8
Delay (s)	165.7
Level of Service	F
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor		0.86	1.00		0.86	1.00	1.00	0.91			0.91	
Frt		1.00	0.85		1.00	0.85	1.00	1.00			0.98	
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)		5733	1417		5733	1417	1583	4547			4481	
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)		5733	1417		5733	1417	1583	4547			4481	
Volume (vph)	0	790	215	0	1418	269	294	1049	4	0	1388	157
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	806	219	0	1447	274	300	1070	4	0	1416	160
RTOR Reduction (vph)	0	0	7	0	0	56	0	0	0	0	4	0
Lane Group Flow (vph)	0	806	212	0	1447	218	300	1074	0	0	1572	0
Turn Type			pm+ov			Perm	Prot					
Protected Phases		8	1		4		1	6			2	
Permitted Phases		8	8			4						
Actuated Green, G (s)		42.0	52.0		42.0	42.0	10.0	66.0			50.5	
Effective Green, g (s)		44.0	55.5		44.0	44.0	11.5	68.0			52.5	
Actuated g/C Ratio		0.37	0.46		0.37	0.37	0.10	0.57			0.44	
Clearance Time (s)		6.0	5.5		6.0	6.0	5.5	6.0			6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)		2102	703		2102	520	152	2577			1960	
v/s Ratio Prot		0.14	0.03		c0.25		c0.19	0.24			c0.35	
v/s Ratio Perm			0.12			0.15						
v/c Ratio		0.38	0.30		0.69	0.42	1.97	0.42			0.80	
Uniform Delay, d1		28.0	20.1		32.2	28.4	54.2	14.7			29.2	
Progression Factor		1.20	1.73		1.00	1.00	1.02	0.63			0.28	
Incremental Delay, d2		0.5	0.2		1.9	2.5	459.2	0.5			1.6	
Delay (s)		34.1	35.1		34.1	30.9	514.3	9.8			9.7	
Level of Service		C	D		C	C	F	A			A	
Approach Delay (s)		34.3			33.6			119.9			9.7	
Approach LOS		C			C			F			A	

Intersection Summary			
HCM Average Control Delay	47.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frt		0.95			0.99		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1567			1630		1583	4534		1583	4473	
Flt Permitted		0.85			0.92		0.14	1.00		0.17	1.00	
Satd. Flow (perm)		1353			1511		232	4534		284	4473	
Volume (vph)	54	60	57	31	102	12	66	1238	30	70	1258	161
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	63	60	33	107	13	69	1303	32	74	1324	169
RTOR Reduction (vph)	0	15	0	0	3	0	0	2	0	0	14	0
Lane Group Flow (vph)	0	165	0	0	150	0	69	1333	0	74	1479	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0		83.4	83.4		83.4	83.4	
Effective Green, g (s)		29.0			29.0		83.0	83.0		83.0	83.0	
Actuated g/C Ratio		0.24			0.24		0.69	0.69		0.69	0.69	
Clearance Time (s)		3.0			3.0		3.6	3.6		3.6	3.6	
Vehicle Extension (s)		3.0			3.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		327			365		160	3136		196	3094	
v/s Ratio Prot								0.29			c0.33	
v/s Ratio Perm		c0.12			0.10		0.30			0.26		
v/c Ratio		0.50			0.41		0.43	0.43		0.38	0.48	
Uniform Delay, d1		39.3			38.3		8.1	8.1		7.7	8.5	
Progression Factor		1.00			1.00		1.00	1.00		1.04	1.41	
Incremental Delay, d2		5.5			3.4		8.3	0.4		3.6	0.4	
Delay (s)		44.8			41.7		16.4	8.5		11.6	12.3	
Level of Service		D			D		B	A		B	B	
Approach Delay (s)		44.8			41.7			8.9			12.3	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	0.97		1.00	0.99		1.00	0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4344		1580	4494		1583	4398		1583	4315	
Flt Permitted	0.11	1.00		0.12	1.00		0.11	1.00		0.12	1.00	
Satd. Flow (perm)	189	4344		194	4494		183	4398		193	4315	
Volume (vph)	109	1005	135	129	1494	49	272	1285	219	86	1087	241
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	115	1058	142	136	1573	52	286	1353	231	91	1144	254
RTOR Reduction (vph)	0	17	0	0	3	0	0	23	0	0	35	0
Lane Group Flow (vph)	115	1183	0	136	1622	0	286	1561	0	91	1363	0
Confl. Peds. (#/hr)	156		159	159		156	90		48	48		90
Confl. Bikes (#/hr)			4			7			3			1
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	44.1	35.8		43.7	35.6		44.5	36.5		40.7	34.6	
Effective Green, g (s)	42.6	35.3		42.2	35.1		43.5	36.5		39.7	34.6	
Actuated g/C Ratio	0.43	0.35		0.42	0.35		0.44	0.36		0.40	0.35	
Clearance Time (s)	3.0	3.5		3.0	3.5		3.0	4.0		3.0	4.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	182	1533		180	1577		178	1605		148	1493	
v/s Ratio Prot	0.05	0.27		c0.05	c0.36		c0.11	0.35		0.03	0.32	
v/s Ratio Perm	0.22			0.26			c0.59			0.21		
v/c Ratio	0.63	0.77		0.76	1.03		1.61	0.97		0.61	0.91	
Uniform Delay, d1	22.3	28.8		20.5	32.5		22.7	31.3		22.7	31.3	
Progression Factor	1.10	1.24		1.57	0.94		1.95	0.70		1.00	1.00	
Incremental Delay, d2	4.9	3.6		13.2	29.0		290.3	13.2		5.2	10.0	
Delay (s)	29.4	39.1		45.4	59.5		334.5	35.2		28.0	41.3	
Level of Service	C	D		D	E		F	D		C	D	
Approach Delay (s)		38.3			58.4			80.9			40.5	
Approach LOS		D			E			F			D	

Intersection Summary			
HCM Average Control Delay	56.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.96			0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes		1.00			0.98		0.97	1.00		1.00	1.00	
Frt		0.95			0.99		1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1499			1573		1536	4433		1579	4501	
Flt Permitted		0.86			0.52		0.17	1.00		0.07	1.00	
Satd. Flow (perm)		1305			831		272	4433		112	4501	
Volume (vph)	58	150	128	181	182	35	125	1673	194	20	1219	33
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	61	158	135	191	192	37	132	1761	204	21	1283	35
RTOR Reduction (vph)	0	22	0	0	4	0	0	14	0	0	3	0
Lane Group Flow (vph)	0	332	0	0	416	0	132	1951	0	21	1315	0
Confl. Peds. (#/hr)	39		76	76		39	104		34	34		104
Confl. Bikes (#/hr)			2			2			6			4
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.0			29.0		64.2	64.2		64.2	64.2	
Effective Green, g (s)		28.0			28.0		64.0	64.0		64.0	64.0	
Actuated g/C Ratio		0.28			0.28		0.64	0.64		0.64	0.64	
Clearance Time (s)		3.0			3.0		3.8	3.8		3.8	3.8	
Vehicle Extension (s)		3.0			3.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		365			233		174	2837		72	2881	
v/s Ratio Prot								0.44			0.29	
v/s Ratio Perm		0.25			c0.50		c0.48			0.19		
v/c Ratio		0.91			1.79		0.76	0.69		0.29	0.46	
Uniform Delay, d1		34.8			36.0		12.6	11.6		8.0	9.2	
Progression Factor		1.00			1.00		1.00	1.00		1.37	1.19	
Incremental Delay, d2		28.8			371.0		26.2	1.4		4.3	0.2	
Delay (s)		63.6			407.0		38.8	13.0		15.2	11.1	
Level of Service		E			F		D	B		B	B	
Approach Delay (s)		63.6			407.0			14.6			11.2	
Approach LOS		E			F			B			B	

Intersection Summary			
HCM Average Control Delay	56.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	106.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frt	1.00	0.98		1.00	1.00		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4474		1583	4528		1583	4519		1583	4432	
Flt Permitted	0.15	1.00		0.13	1.00		0.11	1.00		0.12	1.00	
Satd. Flow (perm)	256	4474		222	4528		188	4519		196	4432	
Volume (vph)	74	1199	150	149	1991	66	179	1770	83	58	1202	252
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	76	1236	155	154	2053	68	185	1825	86	60	1239	260
RTOR Reduction (vph)	0	18	0	0	4	0	0	5	0	0	17	0
Lane Group Flow (vph)	76	1373	0	154	2117	0	185	1906	0	60	1482	0
Turn Type	Perm			pm+pt			pm+pt			pm+pt		
Protected Phases		6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	25.0	25.0		36.0	36.0		41.5	34.5		38.5	33.0	
Effective Green, g (s)	26.0	26.0		37.0	37.0		42.5	35.5		39.5	34.0	
Actuated g/C Ratio	0.29	0.29		0.41	0.41		0.47	0.39		0.44	0.38	
Clearance Time (s)	5.0	5.0		3.5	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	1292		197	1862		197	1782		171	1674	
v/s Ratio Prot		0.31		0.06	c0.47		c0.07	c0.42		0.02	0.33	
v/s Ratio Perm	0.30			0.26			0.37			0.13		
v/c Ratio	1.03	1.06		0.78	1.14		0.94	1.07		0.35	0.89	
Uniform Delay, d1	32.0	32.0		21.3	26.5		18.5	27.2		19.7	26.2	
Progression Factor	0.51	0.52		1.00	1.00		1.79	0.25		1.00	1.00	
Incremental Delay, d2	97.2	40.4		18.0	68.8		20.2	35.1		1.2	7.3	
Delay (s)	113.5	57.0		39.3	95.3		53.4	41.9		20.9	33.4	
Level of Service	F	E		D	F		D	D		C	C	
Approach Delay (s)		59.9			91.5			42.9			33.0	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM Average Control Delay	59.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	110.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.97		1.00	0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3075		1583	3150		1583	4515		1583	4494	
Flt Permitted	0.14	1.00		0.17	1.00		0.12	1.00		0.14	1.00	
Satd. Flow (perm)	231	3075		283	3150		206	4515		235	4494	
Volume (vph)	61	596	142	119	1260	45	251	1948	104	35	1377	123
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	63	614	146	123	1299	46	259	2008	107	36	1420	127
RTOR Reduction (vph)	0	22	0	0	2	0	0	6	0	0	12	0
Lane Group Flow (vph)	63	738	0	123	1343	0	259	2109	0	36	1535	0
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	27.8	27.8		38.6	38.6		41.4	41.4		27.4	27.4	
Effective Green, g (s)	28.8	28.8		39.6	39.6		42.4	42.4		28.4	28.4	
Actuated g/C Ratio	0.32	0.32		0.44	0.44		0.47	0.47		0.32	0.32	
Clearance Time (s)	5.0	5.0		3.0	5.0		4.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	984		223	1386		250	2127		74	1418	
v/s Ratio Prot		0.24		0.04	c0.43		0.12	c0.47			0.34	
v/s Ratio Perm	0.27			0.20			c0.37			0.15		
v/c Ratio	0.85	0.75		0.55	0.97		1.04	0.99		0.49	1.08	
Uniform Delay, d1	28.6	27.4		17.4	24.6		23.8	23.6		24.9	30.8	
Progression Factor	1.00	1.00		0.68	0.94		1.00	1.00		0.98	0.85	
Incremental Delay, d2	68.7	5.2		0.3	3.0		66.6	17.6		10.1	43.7	
Delay (s)	97.3	32.6		12.1	26.2		90.4	41.2		34.4	69.9	
Level of Service	F	C		B	C		F	D		C	E	
Approach Delay (s)		37.6			25.0			46.6			69.1	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM Average Control Delay	46.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	115.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		0.98	1.00		0.97	1.00		0.98	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3063		1547	3101		1538	3165		1554	2962	
Flt Permitted	0.06	1.00		0.40	1.00		0.25	1.00		0.27	1.00	
Satd. Flow (perm)	103	3063		652	3101		401	3165		436	2962	
Volume (vph)	80	421	76	53	1282	111	119	606	2	57	486	152
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	90	473	85	60	1440	125	134	681	2	64	546	171
RTOR Reduction (vph)	0	12	0	0	5	0	0	0	0	0	16	0
Lane Group Flow (vph)	90	546	0	60	1560	0	134	683	0	64	701	0
Confl. Peds. (#/hr)	50		50	50		50	50		50	50		50
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	64.6	64.6		64.6	64.6		44.1	44.1		44.1	44.1	
Effective Green, g (s)	66.5	66.5		66.5	66.5		45.5	45.5		45.5	45.5	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.9	5.9		5.9	5.9		5.4	5.4		5.4	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	57	1697		361	1718		152	1200		165	1123	
v/s Ratio Prot		0.18			0.50			0.22			0.24	
v/s Ratio Perm	c0.87			0.09			c0.33			0.15		
v/c Ratio	1.58	0.32		0.17	0.91		0.88	0.57		0.39	0.62	
Uniform Delay, d1	26.8	14.5		13.1	24.0		34.7	29.5		27.1	30.3	
Progression Factor	1.00	1.00		0.49	0.88		1.37	1.41		1.00	1.00	
Incremental Delay, d2	328.8	0.5		0.1	0.9		42.4	1.7		6.7	2.6	
Delay (s)	355.5	15.0		6.5	22.1		89.9	43.4		33.9	32.9	
Level of Service	F	B		A	C		F	D		C	C	
Approach Delay (s)		62.3			21.5			51.0			33.0	
Approach LOS		E			C			D			C	

Intersection Summary			
HCM Average Control Delay	36.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.97			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1583	4525		1583	4538			1603			1592	
Flt Permitted	0.08	1.00		0.20	1.00			0.83			0.94	
Satd. Flow (perm)	132	4525		334	4538			1345			1504	
Volume (vph)	21	1110	42	44	1789	32	76	149	52	22	98	48
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	1156	44	46	1864	33	79	155	54	23	102	50
RTOR Reduction (vph)	0	4	0	0	2	0	0	8	0	0	14	0
Lane Group Flow (vph)	22	1196	0	46	1895	0	0	280	0	0	161	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	68.0	68.0		68.0	68.0			26.0			26.0	
Effective Green, g (s)	67.0	67.0		67.0	67.0			25.0			25.0	
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.25			0.25	
Clearance Time (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			3.0			3.0	
Lane Grp Cap (vph)	88	3032		224	3040			336			376	
v/s Ratio Prot		0.26			c0.42							
v/s Ratio Perm	0.17			0.14				c0.21			0.11	
v/c Ratio	0.25	0.39		0.21	0.62			0.83			0.43	
Uniform Delay, d1	6.5	7.4		6.3	9.4			35.5			31.5	
Progression Factor	0.49	0.27		0.32	0.45			1.00			1.00	
Incremental Delay, d2	5.4	0.3		0.2	0.1			20.9			3.5	
Delay (s)	8.6	2.3		2.2	4.3			56.4			35.0	
Level of Service	A	A		A	A			E			D	
Approach Delay (s)		2.4			4.3			56.4			35.0	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	4550	1417	1583	1667	1417	1583	1634	
Flt Permitted	0.23	1.00	1.00	0.28	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	388	3167	1417	471	4550	1417	1583	1667	1417	1583	1634	
Volume (vph)	86	578	110	108	1188	56	88	500	35	40	541	83
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	92	622	118	116	1277	60	95	538	38	43	582	89
RTOR Reduction (vph)	0	0	84	0	0	43	0	0	21	0	9	0
Lane Group Flow (vph)	92	622	34	116	1277	17	95	538	17	43	662	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			4		1	2		1	6	
Permitted Phases	4		4	4		4			2			
Actuated Green, G (s)	16.2	16.2	16.2	16.2	16.2	16.2	4.2	25.8	25.8	4.2	25.8	
Effective Green, g (s)	17.2	17.2	17.2	17.2	17.2	17.2	4.2	26.6	26.6	4.2	26.6	
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.07	0.44	0.44	0.07	0.44	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.8	4.8	4.0	4.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	111	908	406	135	1304	406	111	739	628	111	724	
v/s Ratio Prot		0.20			c0.28		c0.06	0.32		0.03	c0.41	
v/s Ratio Perm	0.24		0.02	0.25		0.01			0.01			
v/c Ratio	0.83	0.69	0.08	0.86	0.98	0.04	0.86	0.73	0.03	0.39	0.91	
Uniform Delay, d1	20.0	19.0	15.6	20.3	21.2	15.5	27.6	13.7	9.4	26.7	15.6	
Progression Factor	1.00	1.00	1.00	1.15	1.23	1.48	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	48.3	4.2	0.4	42.9	19.0	0.2	43.7	6.2	0.1	2.2	18.1	
Delay (s)	68.3	23.2	16.0	66.1	45.0	23.0	71.3	19.9	9.5	28.9	33.7	
Level of Service	E	C	B	E	D	C	E	B	A	C	C	
Approach Delay (s)		27.2			45.8			26.6			33.4	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4485		1583	4518		1583	3098		1583	3087	
Flt Permitted	0.09	1.00		0.15	1.00		0.16	1.00		0.17	1.00	
Satd. Flow (perm)	155	4485		256	4518		260	3098		288	3087	
Volume (vph)	74	993	105	87	1595	78	170	633	107	53	570	115
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	80	1068	113	94	1715	84	183	681	115	57	613	124
RTOR Reduction (vph)	0	13	0	0	5	0	0	13	0	0	16	0
Lane Group Flow (vph)	80	1168	0	94	1794	0	183	783	0	57	721	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	50.4	44.1		50.4	44.1		40.0	32.0		35.2	29.6	
Effective Green, g (s)	48.4	43.1		48.4	43.1		38.0	31.0		33.2	28.6	
Actuated g/C Ratio	0.48	0.43		0.48	0.43		0.38	0.31		0.33	0.29	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	151	1933		194	1947		191	960		155	883	
v/s Ratio Prot	c0.03	0.26		0.03	c0.40		c0.07	0.25		0.02	0.23	
v/s Ratio Perm	0.23			0.21			c0.30			0.11		
v/c Ratio	0.53	0.60		0.48	0.92		0.96	0.82		0.37	0.82	
Uniform Delay, d1	19.0	21.9		15.5	26.9		26.3	31.9		24.3	33.3	
Progression Factor	2.55	2.13		1.88	1.70		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.2		0.5	7.0		52.1	7.6		0.5	8.2	
Delay (s)	50.0	47.9		29.6	52.6		78.4	39.5		24.9	41.5	
Level of Service	D	D		C	D		E	D		C	D	
Approach Delay (s)		48.0			51.5			46.7			40.3	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4481		1583	4534		1583	3124		1583	3083	
Flt Permitted	0.11	1.00		0.10	1.00		0.16	1.00		0.17	1.00	
Satd. Flow (perm)	178	4481		171	4534		258	3124		282	3083	
Volume (vph)	70	1147	129	133	1945	46	128	844	84	52	624	133
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	74	1220	137	141	2069	49	136	898	89	55	664	141
RTOR Reduction (vph)	0	15	0	0	3	0	0	8	0	0	20	0
Lane Group Flow (vph)	74	1342	0	141	2115	0	136	979	0	55	785	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	43.9	38.4		47.5	40.2		34.5	26.8		30.1	24.6	
Effective Green, g (s)	41.9	37.4		45.5	39.2		32.5	25.8		28.1	23.6	
Actuated g/C Ratio	0.47	0.42		0.51	0.44		0.36	0.29		0.31	0.26	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	153	1862		185	1975		192	896		153	808	
v/s Ratio Prot	0.02	0.30		c0.05	c0.47		c0.05	c0.31		0.02	0.25	
v/s Ratio Perm	0.20			0.33			0.20			0.09		
v/c Ratio	0.48	0.72		0.76	1.07		0.71	1.09		0.36	0.97	
Uniform Delay, d1	19.7	21.9		15.3	25.4		22.4	32.1		24.3	32.9	
Progression Factor	1.00	1.00		1.77	0.41		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	2.4		1.5	33.1		9.4	58.6		0.5	25.5	
Delay (s)	20.6	24.4		28.6	43.6		31.7	90.7		24.8	58.3	
Level of Service	C	C		C	D		C	F		C	E	
Approach Delay (s)		24.2			42.7			83.6			56.2	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM Average Control Delay	48.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4510		1583	4535		1583	1667	1417	1583	3043	
Flt Permitted	0.09	1.00		0.16	1.00		0.20	1.00	1.00	0.35	1.00	
Satd. Flow (perm)	157	4510		273	4535		330	1667	1417	585	3043	
Volume (vph)	90	1017	63	69	1768	39	126	363	93	34	491	172
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	1071	66	73	1861	41	133	382	98	36	517	181
RTOR Reduction (vph)	0	7	0	0	2	0	0	0	64	0	34	0
Lane Group Flow (vph)	95	1130	0	73	1900	0	133	382	34	36	664	0
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	49.1	43.5		48.7	43.3		42.1	35.2	35.2	36.1	32.2	
Effective Green, g (s)	47.1	42.5		46.7	42.3		40.1	34.2	34.2	34.1	31.2	
Actuated g/C Ratio	0.47	0.42		0.47	0.42		0.40	0.34	0.34	0.34	0.31	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	140	1917		185	1918		206	570	485	228	949	
v/s Ratio Prot	c0.03	0.25		0.02	c0.42		c0.04	c0.23		0.00	0.22	
v/s Ratio Perm	0.29			0.17			0.22		0.02	0.05		
v/c Ratio	0.68	0.59		0.39	0.99		0.65	0.67	0.07	0.16	0.70	
Uniform Delay, d1	21.1	22.1		15.9	28.6		21.3	28.1	22.2	22.8	30.3	
Progression Factor	1.18	1.34		2.02	1.75		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.2	1.3		0.2	11.2		5.1	6.2	0.3	0.1	4.3	
Delay (s)	34.1	30.7		32.5	61.3		26.5	34.2	22.4	22.9	34.5	
Level of Service	C	C		C	E		C	C	C	C	C	
Approach Delay (s)		31.0			60.3			30.7			34.0	
Approach LOS		C			E			C			C	

Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00		1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	2220		1118	2230		1118	2177		1118	2230	
Flt Permitted	0.12	1.00		0.13	1.00		0.37	1.00		0.66	1.00	
Satd. Flow (perm)	139	2220		157	2230		440	2177		781	2230	
Volume (vph)	27	1327	65	53	1443	22	68	112	23	114	397	7
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	1368	67	55	1488	23	70	115	24	118	409	7
RTOR Reduction (vph)	0	4	0	0	1	0	0	18	0	0	2	0
Lane Group Flow (vph)	28	1431	0	55	1510	0	70	121	0	118	414	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.5	60.5		60.5	60.5		20.8	20.8		20.8	20.8	
Effective Green, g (s)	61.0	61.0		61.0	61.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2		4.2	4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	94	1505		106	1511		103	508		182	520	
v/s Ratio Prot		0.64			c0.68			0.06			c0.19	
v/s Ratio Perm	0.20			0.35			0.16			0.15		
v/c Ratio	0.30	0.95		0.52	1.00		0.68	0.24		0.65	0.80	
Uniform Delay, d1	5.9	13.1		7.2	14.5		31.4	28.0		31.2	32.5	
Progression Factor	0.41	0.27		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.0	4.7		17.0	23.0		30.6	1.1		16.5	12.0	
Delay (s)	4.4	8.3		24.2	37.4		62.0	29.1		47.7	44.5	
Level of Service	A	A		C	D		E	C		D	D	
Approach Delay (s)		8.2			37.0			40.1			45.2	
Approach LOS		A			D			D			D	

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						1.00			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.99						0.97			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3052						3068			3135	
Flt Permitted		0.99						1.00			0.88	
Satd. Flow (perm)		3052						3068			2779	
Volume (vph)	59	149	17	0	0	0	0	116	26	38	172	0
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	77	194	22	0	0	0	0	151	34	49	223	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	287	0	0	0	0	0	160	0	0	272	0
Confl. Peds. (#/hr)	28		18	18		28	6		7	7		6
Confl. Bikes (#/hr)			1						1			1
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		37.0						17.0			17.0	
Effective Green, g (s)		36.0						16.0			16.0	
Actuated g/C Ratio		0.60						0.27			0.27	
Clearance Time (s)		3.0						3.0			3.0	
Vehicle Extension (s)		5.0						3.0			3.0	
Lane Grp Cap (vph)		1831						818			741	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.09									c0.10	
v/c Ratio		0.16						0.20			0.37	
Uniform Delay, d1		5.3						17.0			17.9	
Progression Factor		0.93						1.00			1.00	
Incremental Delay, d2		0.2						0.5			1.4	
Delay (s)		5.1						17.6			19.3	
Level of Service		A						B			B	
Approach Delay (s)		5.1			0.0			17.6			19.3	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0				4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00				0.97		1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00				1.00		0.98	1.00
Frt	1.00	1.00		1.00	0.99				0.86		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00				1.00		0.95	1.00
Satd. Flow (prot)	1583	4523		1583	4498				1396		1562	1371
Flt Permitted	0.95	1.00		0.95	1.00				1.00		0.95	1.00
Satd. Flow (perm)	1583	4523		1583	4498				1396		1562	1371
Volume (vph)	68	1127	26	25	1756	102	0	0	16	105	5	166
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	71	1174	27	26	1829	106	0	0	17	109	5	173
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	13	0	0	133
Lane Group Flow (vph)	71	1199	0	26	1930	0	0	0	4	0	114	40
Confl. Peds. (#/hr)	18		42	42		18	15		14	14		15
Confl. Bikes (#/hr)			2			1			1			
Turn Type	Prot			Prot					custom	Perm		Perm
Protected Phases	5	2		1	6						4	
Permitted Phases									8	4		4
Actuated Green, G (s)	7.8	63.9		3.1	59.2				24.0		24.0	24.0
Effective Green, g (s)	6.8	62.9		2.1	58.2				23.0		23.0	23.0
Actuated g/C Ratio	0.07	0.63		0.02	0.58				0.23		0.23	0.23
Clearance Time (s)	3.0	3.0		3.0	3.0				3.0		3.0	3.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0				3.0		3.0	3.0
Lane Grp Cap (vph)	108	2845		33	2618				321		359	315
v/s Ratio Prot	c0.04	0.27		0.02	c0.43							
v/s Ratio Perm									0.00		0.07	0.03
v/c Ratio	0.66	0.42		0.79	0.74				0.01		0.32	0.13
Uniform Delay, d1	45.5	9.4		48.7	15.3				29.7		32.0	30.5
Progression Factor	1.00	1.00		0.64	1.69				1.00		1.00	1.00
Incremental Delay, d2	10.5	0.5		34.7	0.7				0.1		2.3	0.8
Delay (s)	55.9	9.8		66.0	26.6				29.8		34.3	31.4
Level of Service	E	A		E	C				C		C	C
Approach Delay (s)		12.4			27.1			29.8			32.5	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	2230		1118	2232		1118	2166		1118	2192	
Flt Permitted	0.09	1.00		0.12	1.00		0.24	1.00		0.41	1.00	
Satd. Flow (perm)	110	2230		141	2232		277	2166		478	2192	
Volume (vph)	32	1372	22	92	1503	15	15	330	85	26	553	81
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	33	1400	22	94	1534	15	15	337	87	27	564	83
RTOR Reduction (vph)	0	1	0	0	1	0	0	26	0	0	13	0
Lane Group Flow (vph)	33	1421	0	94	1548	0	15	398	0	27	634	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	55.5	55.5		55.5	55.5		25.8	25.8		25.8	25.8	
Effective Green, g (s)	56.0	56.0		56.0	56.0		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29		0.29	0.29	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2		4.2	4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	68	1388		88	1389		80	626		138	633	
v/s Ratio Prot		0.64			c0.69			0.18			c0.29	
v/s Ratio Perm	0.30			0.67			0.05			0.06		
v/c Ratio	0.49	1.02		1.07	1.11		0.19	0.64		0.20	1.00	
Uniform Delay, d1	9.2	17.0		17.0	17.0		24.1	27.9		24.1	32.0	
Progression Factor	1.00	1.00		0.63	0.57		0.31	0.21		1.00	1.00	
Incremental Delay, d2	22.7	30.3		75.8	55.7		3.8	3.7		3.1	36.2	
Delay (s)	31.9	47.3		86.6	65.4		11.3	9.5		27.3	68.2	
Level of Service	C	D		F	E		B	A		C	E	
Approach Delay (s)		47.0			66.6			9.5			66.6	
Approach LOS		D			E			A			E	

Intersection Summary			
HCM Average Control Delay	53.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	119.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00		0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1118	2188		1118	2229		1118	2235	1000		2178	
Flt Permitted	0.12	1.00		0.38	1.00		0.19	1.00	1.00		1.00	
Satd. Flow (perm)	138	2188		450	2229		226	2235	1000		2178	
Volume (vph)	23	492	80	123	1265	24	65	383	96	0	533	110
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	547	89	137	1406	27	72	426	107	0	592	122
RTOR Reduction (vph)	0	14	0	0	2	0	0	0	76	0	19	0
Lane Group Flow (vph)	26	622	0	137	1431	0	72	426	31	0	695	0
Turn Type	Perm			Perm			Perm		Perm			
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8			
Actuated Green, G (s)	55.5	55.5		55.5	55.5		25.8	25.8	25.8		25.8	
Effective Green, g (s)	56.0	56.0		56.0	56.0		26.0	26.0	26.0		26.0	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29	0.29		0.29	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2	4.2		4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	86	1361		280	1387		65	646	289		629	
v/s Ratio Prot		0.28			c0.64			0.19			c0.32	
v/s Ratio Perm	0.19			0.30			0.32		0.03			
v/c Ratio	0.30	0.46		0.49	1.03		1.11	0.66	0.11		1.10	
Uniform Delay, d1	7.9	9.0		9.2	17.0		32.0	28.1	23.5		32.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		0.45	
Incremental Delay, d2	8.8	1.1		6.0	32.8		144.2	5.2	0.7		54.8	
Delay (s)	16.7	10.1		15.2	49.8		176.2	33.3	24.2		69.3	
Level of Service	B	B		B	D		F	C	C		E	
Approach Delay (s)		10.3			46.8			48.7			69.3	
Approach LOS		B			D			D			E	

Intersection Summary			
HCM Average Control Delay	44.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						0.98			1.00	
Flpb, ped/bikes		0.97						1.00			1.00	
Frt		1.00						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3038						3042			3132	
Flt Permitted		0.99						1.00			0.71	
Satd. Flow (perm)		3038						3042			2232	
Volume (vph)	35	96	0	0	0	0	0	653	121	86	489	0
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	38	105	0	0	0	0	0	718	133	95	537	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	143	0	0	0	0	0	826	0	0	632	0
Confl. Peds. (#/hr)	123		3	3		123	1		108	108		1
Confl. Bikes (#/hr)						6			4			2
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		27.0						27.0			27.0	
Effective Green, g (s)		26.0						26.0			26.0	
Actuated g/C Ratio		0.43						0.43			0.43	
Clearance Time (s)		3.0						3.0			3.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1316						1318			967	
v/s Ratio Prot								0.27				
v/s Ratio Perm		0.05									c0.28	
v/c Ratio		0.11						0.63			0.65	
Uniform Delay, d1		10.1						13.2			13.4	
Progression Factor		0.34						1.00			1.00	
Incremental Delay, d2		0.2						2.3			3.4	
Delay (s)		3.6						15.5			16.9	
Level of Service		A						B			B	
Approach Delay (s)		3.6			0.0			15.5			16.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	0.98		1.00	1.00	0.86		1.00	0.86
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1582	4375		1580	4443		1583	3167	1219		3167	1220
Flt Permitted	0.10	1.00		0.14	1.00		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	159	4375		225	4443		1583	3167	1219		3167	1220
Volume (vph)	61	1021	130	231	1550	91	132	650	113	0	529	108
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	64	1064	135	241	1615	95	138	677	118	0	551	112
RTOR Reduction (vph)	0	17	0	0	6	0	0	0	76	0	0	87
Lane Group Flow (vph)	64	1182	0	241	1704	0	138	677	42	0	551	25
Confl. Peds. (#/hr)	202		139	139		202	96		97	97		96
Confl. Bikes (#/hr)						3			1			1
Turn Type	pm+pt			pm+pt			Prot		Perm			Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6					8			4
Actuated Green, G (s)	48.4	43.0		56.0	47.6		9.9	35.9	35.9		22.9	22.9
Effective Green, g (s)	46.4	42.0		55.0	46.6		9.0	35.0	35.0		22.0	22.0
Actuated g/C Ratio	0.47	0.43		0.56	0.48		0.09	0.36	0.36		0.22	0.22
Clearance Time (s)	3.0	3.0		3.0	3.0		3.1	3.1	3.1		3.1	3.1
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	139	1875		251	2113		145	1131	435		711	274
v/s Ratio Prot	0.02	0.27		c0.09	0.38		c0.09	0.21			c0.17	
v/s Ratio Perm	0.20			c0.45					0.03			0.02
v/c Ratio	0.46	0.63		0.96	0.81		0.95	0.60	0.10		0.77	0.09
Uniform Delay, d1	16.5	21.9		17.4	21.9		44.3	25.8	21.0		35.7	30.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	1.6		45.4	3.4		59.5	2.3	0.4		8.1	0.7
Delay (s)	17.4	23.5		62.8	25.3		103.8	28.1	21.4		43.8	30.8
Level of Service	B	C		E	C		F	C	C		D	C
Approach Delay (s)		23.2			29.9			38.5			41.6	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	98.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.95			0.97		1.00	0.99		1.00	0.98	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2986			3042		1583	3146		1583	3110	
Flt Permitted		0.89			0.85		0.31	1.00		0.28	1.00	
Satd. Flow (perm)		2664			2611		523	3146		475	3110	
Volume (vph)	29	107	69	58	168	55	112	770	36	44	577	78
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	30	110	71	60	173	57	115	794	37	45	595	80
RTOR Reduction (vph)	0	49	0	0	23	0	0	3	0	0	11	0
Lane Group Flow (vph)	0	162	0	0	267	0	115	828	0	45	664	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.0			29.0		54.6	48.3		49.4	45.7	
Effective Green, g (s)		28.0			28.0		52.6	47.3		47.4	44.7	
Actuated g/C Ratio		0.31			0.31		0.58	0.53		0.53	0.50	
Clearance Time (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		3.0			3.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)		829			812		368	1653		283	1545	
v/s Ratio Prot							c0.02	c0.26		0.00	0.21	
v/s Ratio Perm		0.06			c0.10		0.16			0.08		
v/c Ratio		0.20			0.33		0.31	0.50		0.16	0.43	
Uniform Delay, d1		22.7			23.8		9.0	13.7		10.7	14.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.2		0.2	1.1		0.1	0.9	
Delay (s)		23.3			24.0		9.2	14.8		10.8	15.4	
Level of Service		C			C		A	B		B	B	
Approach Delay (s)		23.3			24.0			14.1			15.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95			0.95	
Frt	1.00	0.99		1.00	1.00		1.00	0.98			0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1583	4521		1583	4550		1583	3110			3033	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1583	4521		1583	4550		1583	3110			3033	
Volume (vph)	33	1472	66	10	2258	0	245	379	51	0	266	104
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	33	1487	67	10	2281	0	247	383	52	0	269	105
RTOR Reduction (vph)	0	5	0	0	0	0	0	12	0	0	45	0
Lane Group Flow (vph)	33	1549	0	10	2281	0	247	423	0	0	329	0
Turn Type	Prot			Prot			Split					
Protected Phases	1!	2!		5!	6!		8	8			7	
Permitted Phases												
Actuated Green, G (s)	5.1	33.9		4.8	33.2		14.0	14.0			22.0	
Effective Green, g (s)	4.6	33.4		4.8	33.2		14.0	14.0			22.0	
Actuated g/C Ratio	0.05	0.37		0.05	0.37		0.16	0.16			0.24	
Clearance Time (s)	3.5	3.5		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	81	1678		84	1678		246	484			741	
v/s Ratio Prot	c0.02	0.34		0.01	c0.50		c0.16	0.14			c0.11	
v/s Ratio Perm												
v/c Ratio	0.41	0.92		0.12	1.36		1.00	0.87			0.44	
Uniform Delay, d1	41.4	27.1		40.6	28.4		38.0	37.1			28.8	
Progression Factor	1.22	0.92		1.53	0.32		1.00	1.00			1.00	
Incremental Delay, d2	1.1	3.8		0.1	162.1		58.4	16.0			1.9	
Delay (s)	51.7	28.8		62.3	171.1		96.4	53.1			30.7	
Level of Service	D	C		E	F		F	D			C	
Approach Delay (s)		29.3			170.6			68.8			30.7	
Approach LOS		C			F			E			C	

Intersection Summary			
HCM Average Control Delay	100.5	HCM Level of Service	F
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt		0.99		1.00	0.99		1.00	1.00		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		4516		1583	4522		1583	3151		1583	3167	
Flt Permitted		1.00		0.95	1.00		0.56	1.00		0.18	1.00	
Satd. Flow (perm)		4516		1583	4522		935	3151		303	3167	
Volume (vph)	0	1433	75	26	2132	91	126	613	21	65	237	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1508	79	27	2244	96	133	645	22	68	249	0
RTOR Reduction (vph)	0	6	0	0	4	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	1581	0	27	2336	0	133	664	0	68	249	0
Turn Type				Prot			Perm			Perm		
Protected Phases		2!		5!	6			7			7	
Permitted Phases							7			7		
Actuated Green, G (s)		33.9		4.8	33.2		22.0	22.0		22.0	22.0	
Effective Green, g (s)		33.4		4.8	33.2		22.0	22.0		22.0	22.0	
Actuated g/C Ratio		0.37		0.05	0.37		0.24	0.24		0.24	0.24	
Clearance Time (s)		3.5		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1676		84	1668		229	770		74	774	
v/s Ratio Prot		0.35		c0.02	c0.52			0.21			0.08	
v/s Ratio Perm							0.14			c0.22		
v/c Ratio		0.94		0.32	1.40		0.58	0.86		0.92	0.32	
Uniform Delay, d1		27.4		41.0	28.4		29.9	32.5		33.1	27.9	
Progression Factor		0.31		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		6.8		2.2	183.8		10.3	12.2		83.7	1.1	
Delay (s)		15.2		43.2	212.2		40.3	44.8		116.8	29.0	
Level of Service		B		D	F		D	D		F	C	
Approach Delay (s)		15.2			210.3			44.0			47.8	
Approach LOS		B			F			D			D	

Intersection Summary			
HCM Average Control Delay	112.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	30.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						0.95		1.00	0.95	
Frpb, ped/bikes		1.00						0.97		1.00	1.00	
Flpb, ped/bikes		0.98						1.00		0.95	1.00	
Frt		0.99						0.94		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3059						2890		1507	3167	
Flt Permitted		0.99						1.00		0.64	1.00	
Satd. Flow (perm)		3059						2890		1013	3167	
Volume (vph)	16	80	5	0	0	0	0	93	62	59	292	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	19	93	6	0	0	0	0	108	72	69	340	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	53	0	0	0	0
Lane Group Flow (vph)	0	114	0	0	0	0	0	127	0	69	340	0
Confl. Peds. (#/hr)	51		52	52		51	5		55	55		
Confl. Bikes (#/hr)						3						5
Turn Type	Perm									Perm		
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		17.0						17.0		17.0	17.0	
Effective Green, g (s)		16.0						16.0		16.0	16.0	
Actuated g/C Ratio		0.27						0.27		0.27	0.27	
Clearance Time (s)		3.0						3.0		3.0	3.0	
Vehicle Extension (s)		5.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		816						771		270	845	
v/s Ratio Prot								0.04			c0.11	
v/s Ratio Perm		0.04								0.07		
v/c Ratio		0.14						0.16		0.26	0.40	
Uniform Delay, d1		16.8						16.9		17.3	18.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.4						0.5		2.3	1.4	
Delay (s)		17.1						17.3		19.6	19.5	
Level of Service		B						B		B	B	
Approach Delay (s)		17.1			0.0			17.3			19.5	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91			0.91		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00			0.99		1.00	0.90		1.00	1.00	0.78
Flpb, ped/bikes	0.99	1.00			1.00		0.81	1.00		1.00	1.00	1.00
Frt	1.00	1.00			1.00		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1560	4518			4492		1287	1420		1583	1667	1102
Flt Permitted	0.08	1.00			1.00		0.70	1.00		0.95	1.00	1.00
Satd. Flow (perm)	129	4518			4492		942	1420		1583	1667	1102
Volume (vph)	39	1004	14	0	1656	47	105	76	42	76	91	110
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	41	1046	15	0	1725	49	109	79	44	79	95	115
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	0	0	0	0
Lane Group Flow (vph)	41	1060	0	0	1771	0	109	123	0	79	95	115
Confl. Peds. (#/hr)	244		131	131		244	166		211	211		166
Confl. Bikes (#/hr)			3			5			2			3
Turn Type	Perm						Perm			Prot		custom
Protected Phases		2			6			8		7		
Permitted Phases	2						8				4	4
Actuated Green, G (s)	51.8	51.8			51.8		21.0	21.0		8.2	32.2	32.2
Effective Green, g (s)	50.8	50.8			50.8		20.0	20.0		7.2	31.2	31.2
Actuated g/C Ratio	0.56	0.56			0.56		0.22	0.22		0.08	0.35	0.35
Clearance Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Vehicle Extension (s)	5.0	5.0			5.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	73	2550			2535		209	316		127	578	382
v/s Ratio Prot		0.23			c0.39			0.09		c0.05		
v/s Ratio Perm	0.32						c0.12				0.06	0.10
v/c Ratio	0.56	0.42			0.70		0.52	0.39		0.62	0.16	0.30
Uniform Delay, d1	12.5	11.2			14.1		30.8	29.8		40.1	20.4	21.4
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	27.7	0.5			1.6		9.0	3.6		9.1	0.6	2.0
Delay (s)	40.2	11.7			15.7		39.8	33.4		49.2	21.0	23.5
Level of Service	D	B			B		D	C		D	C	C
Approach Delay (s)		12.7			15.7			36.4			29.7	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBR2
Lane Configurations									
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0	4.0			4.0
Lane Util. Factor		1.00	0.91		1.00	0.91			1.00
Frpb, ped/bikes		1.00	1.00		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00			1.00
Frt		1.00	1.00		1.00	0.99			0.86
Flt Protected		0.95	1.00		0.95	1.00			1.00
Satd. Flow (prot)		1583	4515		1583	4457			1442
Flt Permitted		0.95	1.00		0.95	1.00			1.00
Satd. Flow (perm)		1583	4515		1583	4457			1442
Volume (vph)	343	93	1073	36	332	1376	42	41	32
Peak-hour factor, PHF	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.92
Adj. Flow (vph)	373	97	1118	38	346	1433	44	43	35
RTOR Reduction (vph)	0	0	3	0	0	3	0	0	31
Lane Group Flow (vph)	0	470	1153	0	346	1517	0	0	4
Confl. Peds. (#/hr)	63	81		28	28		63	81	35
Confl. Bikes (#/hr)				5			9	10	1
Turn Type	Prot	Prot			Prot				custom
Protected Phases	1	1	2		8	6			1
Permitted Phases									
Actuated Green, G (s)		13.5	53.3		24.2	80.5			13.5
Effective Green, g (s)		12.5	52.3		23.2	79.5			12.5
Actuated g/C Ratio		0.12	0.52		0.23	0.80			0.12
Clearance Time (s)		3.0	3.0		3.0	3.0			3.0
Vehicle Extension (s)		2.5	5.0		3.0	5.0			2.5
Lane Grp Cap (vph)		198	2361		367	3543			180
v/s Ratio Prot		c0.30	c0.26		c0.22	0.34			0.00
v/s Ratio Perm									
v/c Ratio		2.37	0.49		0.94	0.43			0.02
Uniform Delay, d1		43.8	15.3		37.7	3.2			38.4
Progression Factor		1.20	1.94		1.00	1.00			1.00
Incremental Delay, d2		619.6	0.1		32.4	0.4			0.0
Delay (s)		671.9	29.8		70.1	3.6			38.4
Level of Service		F	C		E	A			D
Approach Delay (s)			215.4			15.9			
Approach LOS			F			B			

Intersection Summary			
HCM Average Control Delay	108.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	0.86	0.86		1.00	0.91			0.95	1.00		0.86	0.86
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	961	3007		1118	3202			2235	1000		3035	860
Flt Permitted	0.95	0.68		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	961	2069		1118	3202			2235	1000		3035	860
Volume (vph)	639	1329	16	151	1223	26	0	596	13	0	1366	362
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	666	1384	17	157	1274	27	0	621	14	0	1423	377
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	10	0	0	271
Lane Group Flow (vph)	410	1656	0	157	1299	0	0	621	4	0	1423	106
Turn Type	Prot			Prot					Perm			Over
Protected Phases	7	4		3	8			2			6	7
Permitted Phases									2			
Actuated Green, G (s)	20.9	37.7		19.6	36.4			28.4	28.4		28.4	20.9
Effective Green, g (s)	22.0	38.3		20.7	37.0			29.0	29.0		29.0	22.0
Actuated g/C Ratio	0.22	0.38		0.21	0.37			0.29	0.29		0.29	0.22
Clearance Time (s)	5.1	4.6		5.1	4.6			4.6	4.6		4.6	5.1
Vehicle Extension (s)	3.0	3.0		5.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	211	999		231	1185			648	290		880	189
v/s Ratio Prot	c0.43	0.36		0.14	c0.41			0.28			c0.47	0.12
v/s Ratio Perm		c0.27							0.00			
v/c Ratio	1.94	1.66		0.68	1.10			0.96	0.01		1.62	0.56
Uniform Delay, d1	39.0	30.9		36.6	31.5			34.9	25.3		35.5	34.7
Progression Factor	1.00	1.00		1.05	0.38			1.00	1.00		1.00	1.00
Incremental Delay, d2	441.3	300.3		4.8	50.3			26.5	0.1		282.9	3.8
Delay (s)	480.3	331.2		43.0	62.3			61.4	25.4		318.4	38.5
Level of Service	F	F		D	E			E	C		F	D
Approach Delay (s)		360.7			60.3			60.6			259.8	
Approach LOS		F			E			E			F	

Intersection Summary			
HCM Average Control Delay	224.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	140.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.99		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3172		1118	3205		1118	2235	1000	1118	2159	
Flt Permitted		0.71		0.95	1.00		0.14	1.00	1.00	0.35	1.00	
Satd. Flow (perm)		2265		1118	3205		162	2235	1000	413	2159	
Volume (vph)	168	1015	46	171	971	13	41	458	264	27	720	214
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	177	1068	48	180	1022	14	43	482	278	28	758	225
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	197	0	28	0
Lane Group Flow (vph)	0	1289	0	180	1035	0	43	482	81	28	955	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		
Actuated Green, G (s)		37.7		19.6	36.4		28.4	28.4	28.4	28.4	28.4	
Effective Green, g (s)		38.3		20.7	37.0		29.0	29.0	29.0	29.0	29.0	
Actuated g/C Ratio		0.38		0.21	0.37		0.29	0.29	0.29	0.29	0.29	
Clearance Time (s)		4.6		5.1	4.6		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)		3.0		5.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1067		231	1186		47	648	290	120	626	
v/s Ratio Prot		c0.27		0.16	c0.32			0.22			c0.44	
v/s Ratio Perm		c0.20					0.26		0.08	0.07		
v/c Ratio		1.21		0.78	0.87		0.91	0.74	0.28	0.23	1.53	
Uniform Delay, d1		30.9		37.5	29.3		34.3	32.1	27.4	27.0	35.5	
Progression Factor		0.58		0.92	1.40		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		94.6		16.3	8.3		107.9	7.6	2.4	4.5	244.8	
Delay (s)		112.7		50.9	49.5		142.2	39.7	29.8	31.5	280.3	
Level of Service		F		D	D		F	D	C	C	F	
Approach Delay (s)		112.7			49.7			41.8			273.4	
Approach LOS		F			D			D			F	

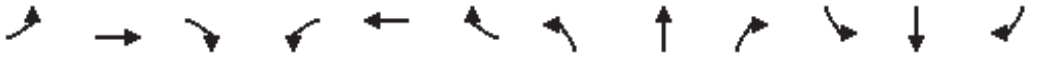
Intersection Summary			
HCM Average Control Delay	119.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	132.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.86	1.00	0.97	0.86	0.97	0.88
Frpb, ped/bikes		1.00	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)		4047	968	2168	4047	2168	1760
Flt Permitted		1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)		4047	968	2168	4047	2168	1760
Volume (vph)	0	1291	574	932	1534	243	236
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1331	592	961	1581	251	243
RTOR Reduction (vph)	0	0	51	0	0	0	174
Lane Group Flow (vph)	0	1331	541	961	1581	251	69
Confl. Peds. (#/hr)			33	33			38
Confl. Bikes (#/hr)			14				1
Turn Type	Prot		pm+ov	Prot			Over
Protected Phases	1	6	4	3	2 3	4	3
Permitted Phases			6				
Actuated Green, G (s)		39.0	69.1	35.0	80.0	30.1	35.0
Effective Green, g (s)		41.0	74.0	34.0	79.0	33.0	34.0
Actuated g/C Ratio		0.34	0.62	0.28	0.66	0.28	0.28
Clearance Time (s)		6.0	6.9	3.0		6.9	3.0
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1383	629	614	2664	596	499
v/s Ratio Prot		c0.33	c0.24	c0.44	0.39	0.12	0.04
v/s Ratio Perm			0.32				
v/c Ratio		0.96	0.86	1.57	0.59	0.42	0.14
Uniform Delay, d1		38.7	18.8	43.0	11.5	35.7	32.1
Progression Factor		0.31	1.83	1.00	1.00	1.00	1.00
Incremental Delay, d2		8.9	5.0	262.2	0.4	0.5	0.1
Delay (s)		20.8	39.3	305.2	11.9	36.2	32.2
Level of Service		C	D	F	B	D	C
Approach Delay (s)		26.5			122.7	34.2	
Approach LOS		C			F	C	

Intersection Summary			
HCM Average Control Delay	76.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.95	0.88				1.00	0.91			0.95	1.00
Frt	1.00	1.00	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1504	1504	2493				1583	4550			3167	1417
Flt Permitted	0.95	0.95	1.00				0.47	1.00			1.00	1.00
Satd. Flow (perm)	1504	1504	2493				779	4550			3167	1417
Volume (vph)	137	0	82	0	0	0	183	949	0	0	381	228
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	156	0	93	0	0	0	208	1078	0	0	433	259
RTOR Reduction (vph)	0	0	79	0	0	0	0	0	0	0	0	210
Lane Group Flow (vph)	78	78	14	0	0	0	208	1078	0	0	433	49
Turn Type	Split		custom				pm+pt			Perm		Over
Protected Phases	4	4	7 1		3		5	2			6	4
Permitted Phases							2			6		
Actuated Green, G (s)	16.5	16.5	13.3				46.8	41.8			41.8	16.5
Effective Green, g (s)	17.1	17.1	13.9				48.0	43.0			43.0	17.1
Actuated g/C Ratio	0.19	0.19	0.15				0.53	0.48			0.48	0.19
Clearance Time (s)	4.6	4.6					4.0	5.2			5.2	4.6
Vehicle Extension (s)	3.0	3.0					3.0	3.2			3.4	3.0
Lane Grp Cap (vph)	286	286	385				460	2174			1513	269
v/s Ratio Prot	c0.05	0.05	c0.01				c0.03	c0.24			0.14	0.03
v/s Ratio Perm							0.22					
v/c Ratio	0.27	0.27	0.04				0.45	0.50			0.29	0.18
Uniform Delay, d1	31.1	31.1	32.4				11.8	16.1			14.2	30.6
Progression Factor	0.86	0.86	1.16				1.25	1.21			1.00	1.00
Incremental Delay, d2	1.3	1.3	0.0				0.7	0.8			0.5	1.5
Delay (s)	28.2	28.2	37.5				15.5	20.3			14.7	32.1
Level of Service	C	C	D				B	C			B	C
Approach Delay (s)		31.6			0.0			19.5			21.2	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM Average Control Delay	21.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		0.91	1.00		0.86		0.97	0.91		0.97	0.95	0.88
Frt		1.00	0.85		0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		4550	1417		5663		3072	4449		3072	3167	2493
Flt Permitted		1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		4550	1417		5663		3072	4449		3072	3167	2493
Volume (vph)	0	1673	75	0	2380	214	352	349	61	465	480	462
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1707	77	0	2429	218	359	356	62	474	490	471
RTOR Reduction (vph)	0	0	35	0	16	0	0	3	0	0	0	9
Lane Group Flow (vph)	0	1707	42	0	2631	0	359	415	0	474	490	462
Turn Type			pm+ov				Prot			Prot		Perm
Protected Phases		6	3		2		3	8		7	4	
Permitted Phases			6									4
Actuated Green, G (s)		35.5	47.5		35.5		12.0	27.7		12.0	27.7	27.7
Effective Green, g (s)		37.0	49.0		37.0		12.0	29.0		12.0	29.0	29.0
Actuated g/C Ratio		0.41	0.54		0.41		0.13	0.32		0.13	0.32	0.32
Clearance Time (s)		5.5	4.0		5.5		4.0	5.3		4.0	5.3	5.3
Vehicle Extension (s)		4.9	3.0		5.2		3.0	5.1		3.0	5.1	5.1
Lane Grp Cap (vph)		1871	834		2328		410	1434		410	1020	803
v/s Ratio Prot		0.38	0.01		c0.46		0.12	0.09		c0.15	0.15	
v/s Ratio Perm			0.02									c0.19
v/c Ratio		0.91	0.05		1.13		0.88	0.29		1.16	0.48	0.58
Uniform Delay, d1		25.0	9.6		26.5		38.3	22.8		39.0	24.5	25.4
Progression Factor		1.00	1.00		0.41		1.00	1.00		0.97	0.82	0.82
Incremental Delay, d2		8.3	0.0		59.2		18.4	0.5		94.4	0.8	1.6
Delay (s)		33.2	9.6		69.9		56.7	23.3		132.3	20.9	22.5
Level of Service		C	A		E		E	C		F	C	C
Approach Delay (s)		32.2			69.9			38.7			58.2	
Approach LOS		C			E			D			E	

Intersection Summary			
HCM Average Control Delay	53.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.86	1.00	0.97	0.91	0.94	0.88
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1118	4047	1000	2168	3212	3152	1760
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1118	4047	1000	2168	3212	3152	1760
Volume (vph)	6	1567	625	463	1343	160	335
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	1583	631	468	1357	162	338
RTOR Reduction (vph)	0	0	452	0	0	0	249
Lane Group Flow (vph)	6	1583	179	468	1357	162	89
Confl. Peds. (#/hr)			55	55		1	202
Confl. Bikes (#/hr)			15				7
Turn Type	Prot		Over	Prot			Over
Protected Phases	1	6	8	5	2	8	5
Permitted Phases							
Actuated Green, G (s)	1.0	40.7	30.1	31.6	70.3	30.1	31.6
Effective Green, g (s)	2.0	43.4	33.0	31.6	73.0	33.0	31.6
Actuated g/C Ratio	0.02	0.36	0.28	0.26	0.61	0.28	0.26
Clearance Time (s)	5.0	6.7	6.9	4.0	6.7	6.9	4.0
Vehicle Extension (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0
Lane Grp Cap (vph)	19	1464	275	571	1954	867	463
v/s Ratio Prot	0.01	c0.39	c0.18	c0.22	0.42	0.05	0.05
v/s Ratio Perm							
v/c Ratio	0.32	1.08	0.65	0.82	0.69	0.19	0.19
Uniform Delay, d1	58.3	38.3	38.4	41.5	15.9	33.2	34.3
Progression Factor	0.52	1.38	6.21	0.79	0.79	1.00	1.00
Incremental Delay, d2	0.9	38.0	0.5	7.6	1.7	0.1	0.2
Delay (s)	30.9	90.8	239.0	40.5	14.4	33.4	34.5
Level of Service	C	F	F	D	B	C	C
Approach Delay (s)		132.8			21.1	34.1	
Approach LOS		F			C	C	

Intersection Summary			
HCM Average Control Delay	77.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.90	1.00	1.00	0.90	1.00	0.95	
Flpb, ped/bikes	0.96	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1527	3167	1354	1543	3167	1277	3072	4550	1275	3072	4088	
Flt Permitted	0.55	1.00	1.00	0.48	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	883	3167	1354	776	3167	1277	3072	4550	1275	3072	4088	
Volume (vph)	102	427	71	29	127	31	258	861	606	244	279	179
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	115	480	80	33	143	35	290	967	681	274	313	201
RTOR Reduction (vph)	0	0	43	0	0	27	0	0	105	0	104	0
Lane Group Flow (vph)	115	480	37	33	143	8	290	967	576	274	410	0
Confl. Peds. (#/hr)	92		51	51		92	89		76	76		89
Confl. Bikes (#/hr)			2						2			5
Turn Type	pm+pt		pm+ov	Perm		Perm	Prot		Perm	Prot		
Protected Phases	1	6	3		2		3	8		7	4	
Permitted Phases	6		6	2		2			8			
Actuated Green, G (s)	28.4	28.4	39.6	18.1	18.1	18.1	11.2	36.6	36.6	11.0	36.4	
Effective Green, g (s)	29.9	29.9	41.1	19.6	19.6	19.6	11.2	37.1	37.1	11.0	36.9	
Actuated g/C Ratio	0.33	0.33	0.46	0.22	0.22	0.22	0.12	0.41	0.41	0.12	0.41	
Clearance Time (s)	3.5	5.5	4.0	5.5	5.5	5.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	4.0	2.0	4.0	4.0	4.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	338	1052	679	169	690	278	382	1876	526	375	1676	
v/s Ratio Prot	0.02	c0.15	0.01		0.05		0.09	0.21		c0.09	0.10	
v/s Ratio Perm	0.09		0.02	0.04		0.01			c0.45			
v/c Ratio	0.34	0.46	0.05	0.20	0.21	0.03	0.76	0.52	1.10	0.73	0.24	
Uniform Delay, d1	21.8	23.7	13.6	28.8	28.8	27.7	38.1	19.7	26.4	38.1	17.4	
Progression Factor	1.29	1.27	4.03	1.05	1.03	1.42	1.08	0.67	0.59	1.00	1.00	
Incremental Delay, d2	0.5	0.4	0.0	0.7	0.2	0.0	6.2	0.8	64.5	6.2	0.3	
Delay (s)	28.7	30.4	54.9	30.8	29.7	39.4	47.4	14.0	80.2	44.3	17.8	
Level of Service	C	C	D	C	C	D	D	B	F	D	B	
Approach Delay (s)		33.0			31.5			42.3			27.0	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor					1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt					1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1583	1417	1583	4550	1417	1583	4550	
Flt Permitted					0.76	1.00	0.47	1.00	1.00	0.11	1.00	
Satd. Flow (perm)					1262	1417	785	4550	1417	181	4550	
Volume (vph)	0	0	0	152	0	246	2	1500	43	15	422	0
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	171	0	276	2	1685	48	17	474	0
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	16	0	0	0
Lane Group Flow (vph)	0	0	0	0	171	258	2	1685	32	17	474	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)					20.2	20.2	59.8	59.8	59.8	59.8	59.8	
Effective Green, g (s)					21.2	21.2	60.8	60.8	60.8	60.8	60.8	
Actuated g/C Ratio					0.24	0.24	0.68	0.68	0.68	0.68	0.68	
Clearance Time (s)					5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)					297	334	530	3074	957	122	3074	
v/s Ratio Prot								c0.37			0.10	
v/s Ratio Perm					0.14	c0.18	0.00		0.02	0.09		
v/c Ratio					0.58	0.77	0.00	0.55	0.03	0.14	0.15	
Uniform Delay, d1					30.4	32.1	4.7	7.5	4.8	5.2	5.3	
Progression Factor					1.00	1.00	0.51	0.70	0.37	2.16	1.84	
Incremental Delay, d2					2.7	10.5	0.0	0.6	0.1	2.3	0.1	
Delay (s)					33.1	42.7	2.4	5.8	1.9	13.6	9.9	
Level of Service					C	D	A	A	A	B	A	
Approach Delay (s)		0.0			39.0			5.7			10.0	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95	0.95	1.00	0.91		0.97	0.91	
Frt		0.92			0.94	0.85	1.00	1.00		1.00	0.96	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2855			1453	1346	1583	4542		3072	4366	
Flt Permitted		0.88			0.86	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2542			1274	1346	1583	4542		3072	4366	
Volume (vph)	5	2	9	88	36	419	57	1083	12	39	405	150
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	2	10	100	41	476	65	1231	14	44	460	170
RTOR Reduction (vph)	0	8	0	0	35	10	0	1	0	0	54	0
Lane Group Flow (vph)	0	10	0	0	209	363	65	1244	0	44	576	0
Turn Type	Perm			Perm		pm+ov	Prot			Prot		
Protected Phases		8			4	5	1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)		19.0			19.0	26.6	7.9	49.2		7.6	48.9	
Effective Green, g (s)		20.5			20.5	28.1	7.9	49.9		7.6	49.6	
Actuated g/C Ratio		0.23			0.23	0.31	0.09	0.55		0.08	0.55	
Clearance Time (s)		5.5			5.5	4.0	4.0	4.7		4.0	4.7	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		579			290	480	139	2518		259	2406	
v/s Ratio Prot						c0.06	0.04	c0.27		0.01	0.13	
v/s Ratio Perm		0.00			0.16	0.21						
v/c Ratio		0.02			0.72	0.76	0.47	0.49		0.17	0.24	
Uniform Delay, d1		26.9			32.1	27.9	39.0	12.3		38.3	10.4	
Progression Factor		1.00			1.00	1.00	1.47	0.19		1.02	1.50	
Incremental Delay, d2		0.0			8.6	6.7	2.1	0.6		0.3	0.2	
Delay (s)		27.0			40.7	34.6	59.4	3.0		39.3	15.9	
Level of Service		C			D	C	E	A		D	B	
Approach Delay (s)		27.0			37.0			5.8			17.5	
Approach LOS		C			D			A			B	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97		1.00	1.00		1.00	0.97	0.91		1.00	0.91	
Frt	1.00		0.85	1.00		0.85	1.00	1.00		1.00	0.95	
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3072		1417	1583		1417	3072	4531		1583	4327	
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3072		1417	1583		1417	3072	4531		1583	4327	
Volume (vph)	14	0	12	23	0	95	210	1067	31	14	332	161
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	17	0	15	28	0	117	259	1317	38	17	410	199
RTOR Reduction (vph)	0	0	12	0	0	85	0	3	0	0	87	0
Lane Group Flow (vph)	17	0	3	28	0	32	259	1352	0	17	522	0
Turn Type	Prot		custom	Prot		custom	Prot			Prot		
Protected Phases	3		3 5	4		1 4	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	9.2		19.2	14.9		25.3	10.0	42.5		5.5	38.0	
Effective Green, g (s)	10.1		19.3	15.8		24.5	9.2	43.4		4.7	38.9	
Actuated g/C Ratio	0.11		0.21	0.18		0.27	0.10	0.48		0.05	0.43	
Clearance Time (s)	4.9			4.9			3.2	4.9		3.2	4.9	
Vehicle Extension (s)	3.0			3.0			3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	345		304	278		386	314	2185		83	1870	
v/s Ratio Prot	c0.01		0.00	c0.02		0.02	c0.08	c0.30		0.01	0.12	
v/s Ratio Perm												
v/c Ratio	0.05		0.01	0.10		0.08	0.82	0.62		0.20	0.28	
Uniform Delay, d1	35.7		27.8	31.1		24.4	39.6	17.2		40.9	16.5	
Progression Factor	1.00		1.00	1.00		1.00	1.51	0.44		1.19	0.64	
Incremental Delay, d2	0.1		0.0	0.2		0.1	1.7	0.1		1.2	0.4	
Delay (s)	35.7		27.8	31.3		24.5	61.4	7.7		49.8	10.8	
Level of Service	D		C	C		C	E	A		D	B	
Approach Delay (s)		32.0			25.8			16.3			11.9	
Approach LOS		C			C			B			B	

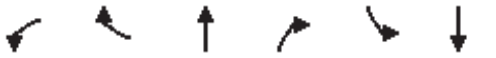
Intersection Summary			
HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.91		0.97	0.88
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3072	4550	4413		3072	2493
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3072	4550	4413		3072	2493
Volume (vph)	987	1338	1375	345	56	191
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1097	1487	1528	383	62	212
RTOR Reduction (vph)	0	0	43	0	0	153
Lane Group Flow (vph)	1097	1487	1868	0	62	59
Turn Type	Prot					Prot
Protected Phases	5	2 5	6		4	4
Permitted Phases						
Actuated Green, G (s)	13.0	55.5	37.5		24.0	24.0
Effective Green, g (s)	14.0	57.0	39.0		25.0	25.0
Actuated g/C Ratio	0.16	0.63	0.43		0.28	0.28
Clearance Time (s)	5.0		5.5		5.0	5.0
Vehicle Extension (s)	2.0		3.0		3.0	3.0
Lane Grp Cap (vph)	478	2882	1912		853	693
v/s Ratio Prot	c0.36	0.33	c0.42		0.02	c0.02
v/s Ratio Perm						
v/c Ratio	2.29	0.52	0.98		0.07	0.08
Uniform Delay, d1	38.0	9.0	25.1		24.0	24.0
Progression Factor	1.00	1.00	1.00		1.27	2.99
Incremental Delay, d2	589.3	0.7	15.8		0.0	0.1
Delay (s)	627.3	9.7	40.9		30.5	71.8
Level of Service	F	A	D		C	E
Approach Delay (s)		271.9	40.9		62.5	
Approach LOS		F	D		E	

Intersection Summary			
HCM Average Control Delay	167.3	HCM Level of Service	F
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	0.94	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.97	1.00
Satd. Flow (prot)	3212	1000	2168	3212	2081	910
Flt Permitted	1.00	1.00	0.95	1.00	0.97	1.00
Satd. Flow (perm)	3212	1000	2168	3212	2081	910
Volume (vph)	2091	347	178	1304	71	105
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	2134	354	182	1331	72	107
RTOR Reduction (vph)	0	149	0	0	38	43
Lane Group Flow (vph)	2134	205	182	1331	85	14
Confl. Peds. (#/hr)		59	59		11	
Confl. Bikes (#/hr)		14				
Turn Type		Over	Prot			Perm
Protected Phases	6	4	5	2	4	
Permitted Phases						4
Actuated Green, G (s)	63.4	28.1	13.4	80.8	28.1	28.1
Effective Green, g (s)	64.6	30.0	13.4	82.0	30.0	30.0
Actuated g/C Ratio	0.54	0.25	0.11	0.68	0.25	0.25
Clearance Time (s)	5.2	5.9	4.0	5.2	5.9	5.9
Vehicle Extension (s)	3.7	3.8	1.0	3.5	3.8	3.8
Lane Grp Cap (vph)	1729	250	242	2195	520	228
v/s Ratio Prot	c0.66	c0.20	c0.08	0.41	0.04	
v/s Ratio Perm						0.02
v/c Ratio	1.23	0.82	0.75	0.61	0.16	0.06
Uniform Delay, d1	27.7	42.4	51.7	10.3	35.2	34.3
Progression Factor	1.63	0.44	1.29	0.68	1.00	1.00
Incremental Delay, d2	105.9	2.8	9.0	1.0	0.7	0.5
Delay (s)	151.1	21.5	75.7	8.0	35.8	34.8
Level of Service	F	C	E	A	D	C
Approach Delay (s)	132.6			16.2	35.5	
Approach LOS	F			B	D	

Intersection Summary			
HCM Average Control Delay	86.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.88	0.95	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	2493	3167	1417	1583	4550
Flt Permitted	0.95	1.00	1.00	1.00	0.59	1.00
Satd. Flow (perm)	3072	2493	3167	1417	980	4550
Volume (vph)	57	71	181	425	404	187
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	63	79	201	472	449	208
RTOR Reduction (vph)	0	73	0	53	0	0
Lane Group Flow (vph)	63	6	201	419	449	208
Turn Type		Perm		pm+ov	pm+pt	
Protected Phases	4		2	4	1	6
Permitted Phases		4		2	6	
Actuated Green, G (s)	6.2	6.2	61.0	67.2	73.8	73.8
Effective Green, g (s)	6.7	6.7	62.5	69.2	75.3	75.3
Actuated g/C Ratio	0.07	0.07	0.69	0.77	0.84	0.84
Clearance Time (s)	4.5	4.5	5.5	4.5	3.0	5.5
Vehicle Extension (s)	3.0	3.0	5.0	3.0	3.0	5.0
Lane Grp Cap (vph)	229	186	2199	1152	879	3807
v/s Ratio Prot	0.02		0.06	c0.03	c0.05	0.05
v/s Ratio Perm		0.00		0.27	c0.38	
v/c Ratio	0.28	0.03	0.09	0.36	0.51	0.05
Uniform Delay, d1	39.4	38.6	4.5	3.3	1.8	1.3
Progression Factor	0.96	1.56	0.12	5.53	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.0	0.0	0.5	0.0
Delay (s)	38.5	60.4	0.5	18.5	2.3	1.3
Level of Service	D	E	A	B	A	A
Approach Delay (s)	50.7		13.1			2.0
Approach LOS	D		B			A

Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.91	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	4550	4550	1417	3072	2493
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3072	4550	4550	1417	3072	2493
Volume (vph)	850	2609	1812	137	123	72
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	876	2690	1868	141	127	74
RTOR Reduction (vph)	0	0	0	83	0	0
Lane Group Flow (vph)	876	2690	1868	58	127	74
Turn Type	Prot			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	15.0	55.1	36.1	36.1	25.0	25.0
Effective Green, g (s)	15.0	56.3	37.3	37.3	25.7	25.7
Actuated g/C Ratio	0.17	0.63	0.41	0.41	0.29	0.29
Clearance Time (s)	4.0	5.2	5.2	5.2	4.7	4.7
Vehicle Extension (s)	3.0	4.8	4.6	4.6	3.0	3.0
Lane Grp Cap (vph)	512	2846	1886	587	877	712
v/s Ratio Prot	c0.29	c0.59	0.41		c0.04	
v/s Ratio Perm				0.04		0.03
v/c Ratio	1.71	0.95	0.99	0.10	0.14	0.10
Uniform Delay, d1	37.5	15.4	26.2	16.1	24.0	23.7
Progression Factor	1.50	0.58	1.00	1.00	1.00	1.00
Incremental Delay, d2	320.7	0.9	18.6	0.3	0.1	0.1
Delay (s)	376.8	10.0	44.8	16.4	24.1	23.8
Level of Service	F	A	D	B	C	C
Approach Delay (s)		100.1	42.8		24.0	
Approach LOS		F	D		C	

Intersection Summary			
HCM Average Control Delay	77.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4550	1417	1583	4534		1583	3070		1583	3109	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.13	1.00		0.44	1.00	
Satd. Flow (perm)	1583	4550	1417	1583	4534		215	3070		728	3109	
Volume (vph)	96	1758	369	96	1777	44	104	450	116	58	607	84
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	97	1776	373	97	1795	44	105	455	117	59	613	85
RTOR Reduction (vph)	0	0	177	0	2	0	0	19	0	0	9	0
Lane Group Flow (vph)	97	1776	196	97	1837	0	105	553	0	59	689	0
Turn Type	Prot		Perm	Prot			pm+pt			Perm		
Protected Phases	1	6		5	2		3	8			4	
Permitted Phases			6				8			4		
Actuated Green, G (s)	11.2	55.3	55.3	11.2	55.3		39.5	39.5		26.0	26.0	
Effective Green, g (s)	11.2	56.3	56.3	11.2	56.3		40.5	40.5		27.0	27.0	
Actuated g/C Ratio	0.09	0.47	0.47	0.09	0.47		0.34	0.34		0.22	0.22	
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0		3.5	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	148	2135	665	148	2127		181	1036		164	700	
v/s Ratio Prot	c0.06	0.39		0.06	c0.41		0.05	c0.18			c0.22	
v/s Ratio Perm			0.14				0.15			0.08		
v/c Ratio	0.66	0.83	0.29	0.66	0.86		0.58	0.53		0.36	0.98	
Uniform Delay, d1	52.5	27.7	19.6	52.5	28.4		30.9	32.1		39.2	46.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.56	1.59		1.00	1.00	
Incremental Delay, d2	7.7	4.0	1.1	7.7	5.0		3.1	0.3		1.4	29.8	
Delay (s)	60.2	31.7	20.7	60.2	33.4		51.4	51.5		40.6	76.0	
Level of Service	E	C	C	E	C		D	D		D	E	
Approach Delay (s)		31.1			34.7			51.5			73.3	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM Average Control Delay	40.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3212	1000	2168	3212	1000	2168	2235	1000	2168	2235	1000
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	2168	3212	1000	2168	3212	1000	2168	2235	1000	2168	2235	1000
Volume (vph)	48	1644	98	95	1121	125	154	637	167	538	1014	127
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	49	1678	100	97	1144	128	157	650	170	549	1035	130
RTOR Reduction (vph)	0	0	53	0	0	66	0	0	99	0	0	74
Lane Group Flow (vph)	49	1678	47	97	1144	62	157	650	71	549	1035	56
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	7	3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	5.8	29.6	29.6	9.8	33.6	56.2	11.2	38.1	38.1	22.6	49.5	49.5
Effective Green, g (s)	5.8	31.1	31.1	9.8	35.1	57.7	11.2	40.5	40.5	22.6	51.9	51.9
Actuated g/C Ratio	0.05	0.26	0.26	0.08	0.29	0.48	0.09	0.34	0.34	0.19	0.43	0.43
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5	4.0	4.0	6.4	6.4	4.0	6.4	6.4
Vehicle Extension (s)	2.0	4.5	4.5	2.0	5.2	2.0	2.0	4.7	4.7	2.0	4.7	4.7
Lane Grp Cap (vph)	105	832	259	177	940	481	202	754	338	408	967	433
v/s Ratio Prot	0.02	c0.52		0.04	c0.36	0.02	0.07	c0.29		c0.25	c0.46	
v/s Ratio Perm			0.05			0.04			0.07			0.06
v/c Ratio	0.47	2.02	0.18	0.55	1.22	0.13	0.78	0.86	0.21	1.35	1.07	0.13
Uniform Delay, d1	55.6	44.5	34.5	53.0	42.5	17.2	53.2	37.1	28.4	48.7	34.0	20.5
Progression Factor	1.13	1.67	3.24	0.83	0.77	0.89	1.00	1.00	1.00	0.81	0.72	0.14
Incremental Delay, d2	0.1	458.0	0.1	1.5	105.7	0.0	15.6	10.7	0.6	169.5	48.2	0.2
Delay (s)	63.2	532.4	112.2	45.2	138.4	15.4	68.8	47.8	28.9	209.0	72.8	3.2
Level of Service	E	F	F	D	F	B	E	D	C	F	E	A
Approach Delay (s)		496.8			120.3			47.9			111.1	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM Average Control Delay	222.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	120.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	1583	5696		1583	3167	1417	1583	3167	1417
Flt Permitted	0.11	1.00	1.00	0.12	1.00		0.42	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	190	4550	1417	195	5696		694	3167	1417	299	3167	1417
Volume (vph)	115	2677	69	21	2082	94	67	683	154	355	615	264
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	116	2704	70	21	2103	95	68	690	156	359	621	267
RTOR Reduction (vph)	0	0	30	0	7	0	0	0	5	0	0	0
Lane Group Flow (vph)	116	2704	40	21	2191	0	68	690	151	359	621	267
Turn Type	pm+pt		Perm	pm+pt			Perm		pm+ov	pm+pt		pm+ov
Protected Phases	1	6		5	2			8	5	7	4	1
Permitted Phases	6		6	2			8	8	8	4		4
Actuated Green, G (s)	41.4	34.6	34.6	39.6	33.7		24.5	24.5	30.4	35.5	35.5	42.3
Effective Green, g (s)	41.9	35.1	35.1	40.1	34.2		26.0	26.0	31.9	37.0	37.0	43.8
Actuated g/C Ratio	0.47	0.39	0.39	0.45	0.38		0.29	0.29	0.35	0.41	0.41	0.49
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5		5.5	5.5	4.0	4.0	5.5	4.0
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0	3.0	3.0	5.0	3.0
Lane Grp Cap (vph)	194	1775	553	178	2164		200	915	565	223	1302	753
v/s Ratio Prot	c0.05	c0.59		0.01	0.38			0.22	0.02	c0.13	0.20	0.03
v/s Ratio Perm	0.23		0.03	0.04			0.10		0.09	c0.54		0.16
v/c Ratio	0.60	1.52	0.07	0.12	1.01		0.34	0.75	0.27	1.61	0.48	0.35
Uniform Delay, d1	18.7	27.4	17.2	20.5	27.9		25.2	29.1	20.7	23.4	19.4	14.3
Progression Factor	1.20	0.73	0.19	0.28	0.29		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	235.8	0.0	0.2	17.1		2.1	4.2	0.3	294.3	0.6	0.3
Delay (s)	22.9	255.7	3.2	5.9	25.3		27.4	33.3	21.0	317.7	20.0	14.6
Level of Service	C	F	A	A	C		C	C	C	F	B	B
Approach Delay (s)		240.3			25.1			30.8			104.6	
Approach LOS		F			C			C			F	

Intersection Summary			
HCM Average Control Delay	125.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	118.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.97	1.00		0.98	
Satd. Flow (prot)	1583	3081		1583	3156		1504	1530	1417		1592	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.97	1.00		0.98	
Satd. Flow (perm)	1583	3081		1583	3156		1504	1530	1417		1592	
Volume (vph)	22	1076	237	451	1022	24	168	31	121	35	46	22
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	1196	263	501	1136	27	187	34	134	39	51	24
RTOR Reduction (vph)	0	15	0	0	1	0	0	0	83	0	0	0
Lane Group Flow (vph)	24	1444	0	501	1162	0	108	113	51	0	114	0
Turn Type	Prot			Prot			Split		pm+ov	Split		
Protected Phases	1	6		5	2		3	3	5	4	4	
Permitted Phases									3			
Actuated Green, G (s)	3.6	36.1		36.2	68.7		10.0	10.0	46.2		20.0	
Effective Green, g (s)	2.6	36.9		35.2	69.5		10.9	10.9	46.1		21.0	
Actuated g/C Ratio	0.02	0.31		0.29	0.58		0.09	0.09	0.38		0.18	
Clearance Time (s)	3.0	4.8		3.0	4.8		4.9	4.9	3.0		5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	34	947		464	1828		137	139	592		279	
v/s Ratio Prot	0.02	c0.47		c0.32	0.37		0.07	c0.07	0.03		c0.07	
v/s Ratio Perm									0.01			
v/c Ratio	0.71	1.52		1.08	0.64		0.79	0.81	0.09		0.41	
Uniform Delay, d1	58.3	41.5		42.4	16.8		53.4	53.5	23.5		44.0	
Progression Factor	0.92	0.70		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	5.9	236.6		64.9	1.7		25.2	29.1	0.1		1.0	
Delay (s)	59.7	265.8		107.3	18.5		78.6	82.7	23.6		45.0	
Level of Service	E	F		F	B		E	F	C		D	
Approach Delay (s)		262.4			45.3			59.1			45.0	
Approach LOS		F			D			E			D	

Intersection Summary			
HCM Average Control Delay	135.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.89		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1504	1512	1417	1583	1485		1583	1656		1583	1667	1417
Flt Permitted	0.71	0.69	1.00	0.95	1.00		0.56	1.00		0.32	1.00	1.00
Satd. Flow (perm)	1130	1094	1417	1583	1485		926	1656		537	1667	1417
Volume (vph)	310	10	36	17	18	47	80	461	21	25	247	294
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	316	10	37	17	18	48	82	470	21	26	252	300
RTOR Reduction (vph)	0	0	32	0	36	0	0	2	0	0	0	164
Lane Group Flow (vph)	158	168	5	17	30	0	82	489	0	26	252	136
Turn Type	Perm		Perm	Split			Perm			Perm		Perm
Protected Phases		4		3	3			2			2	
Permitted Phases	4		4				2			2		2
Actuated Green, G (s)	10.0	10.0	10.0	17.0	17.0		32.6	32.6		32.6	32.6	32.6
Effective Green, g (s)	11.0	11.0	11.0	18.0	18.0		34.0	34.0		34.0	34.0	34.0
Actuated g/C Ratio	0.15	0.15	0.15	0.24	0.24		0.45	0.45		0.45	0.45	0.45
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.4	5.4		5.4	5.4	5.4
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	166	160	208	380	356		420	751		243	756	642
v/s Ratio Prot				0.01	c0.02			c0.30			0.15	
v/s Ratio Perm	0.14	c0.15	0.00				0.09			0.05		0.10
v/c Ratio	0.95	1.05	0.03	0.04	0.08		0.20	0.65		0.11	0.33	0.21
Uniform Delay, d1	31.7	32.0	27.4	21.9	22.1		12.3	15.9		11.8	13.2	12.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	55.4	85.0	0.1	0.2	0.5		1.0	4.3		0.9	1.2	0.8
Delay (s)	87.2	117.0	27.5	22.1	22.6		13.3	20.2		12.7	14.4	13.1
Level of Service	F	F	C	C	C		B	C		B	B	B
Approach Delay (s)		94.9			22.5			19.3			13.7	
Approach LOS		F			C			B			B	

Intersection Summary					
HCM Average Control Delay	34.6	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.56				
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	63.4%	ICU Level of Service	B		
Analysis Period (min)	15				
c Critical Lane Group					

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	SEL2	SEL	SET	SER
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1700	1700	1700	1700	1700
Total Lost time (s)			4.0	4.0		4.0				4.0	4.0	
Lane Util. Factor			1.00	1.00		0.95				1.00	0.95	
Frt			1.00	0.85		0.98				1.00	0.97	
Flt Protected			0.99	1.00		0.98				0.95	1.00	
Satd. Flow (prot)			1164	1000		2147				1583	3075	
Flt Permitted			0.87	1.00		0.73				0.53	1.00	
Satd. Flow (perm)			1026	1000		1604				878	3075	
Volume (vph)	19	33	194	18	132	150	28	16	4	22	98	23
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	20	34	200	19	136	155	29	16	4	23	101	24
RTOR Reduction (vph)	0	0	0	10	0	5	0	0	0	0	14	0
Lane Group Flow (vph)	0	0	254	9	0	331	0	0	0	27	111	0
Turn Type		Perm		Perm	Perm				Perm	Perm		
Protected Phases			6			2					4	
Permitted Phases		6		6	2				4	4		
Actuated Green, G (s)			34.0	34.0		34.0				30.0	30.0	
Effective Green, g (s)			36.0	36.0		36.0				31.0	31.0	
Actuated g/C Ratio			0.48	0.48		0.48				0.41	0.41	
Clearance Time (s)			6.0	6.0		6.0				5.0	5.0	
Vehicle Extension (s)			3.0	3.0		3.0				3.0	3.0	
Lane Grp Cap (vph)			492	480		770				363	1271	
v/s Ratio Prot											0.04	
v/s Ratio Perm			c0.25	0.01		0.21				0.03		
v/c Ratio			0.52	0.02		0.43				0.07	0.09	
Uniform Delay, d1			13.5	10.2		12.8				13.3	13.4	
Progression Factor			1.49	2.50		1.00				1.00	1.00	
Incremental Delay, d2			3.5	0.1		1.8				0.4	0.1	
Delay (s)			23.6	25.7		14.5				13.7	13.5	
Level of Service			C	C		B				B	B	
Approach Delay (s)			23.7			14.5					13.6	
Approach LOS			C			B					B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NWL	NWT	NWR	NWR2
Lane Configurations				
Ideal Flow (vphpl)	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	
Satd. Flow (prot)	1583	1667	1417	
Flt Permitted	0.67	1.00	1.00	
Satd. Flow (perm)	1121	1667	1417	
Volume (vph)	60	257	156	281
Peak-hour factor, PHF	0.97	0.97	0.97	0.97
Adj. Flow (vph)	62	265	161	290
RTOR Reduction (vph)	0	0	86	0
Lane Group Flow (vph)	62	265	365	0
Turn Type	Perm		Perm	
Protected Phases		8		
Permitted Phases	8		8	
Actuated Green, G (s)	30.0	30.0	30.0	
Effective Green, g (s)	31.0	31.0	31.0	
Actuated g/C Ratio	0.41	0.41	0.41	
Clearance Time (s)	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	
Lane Grp Cap (vph)	463	689	586	
v/s Ratio Prot		0.16		
v/s Ratio Perm	0.06		c0.26	
v/c Ratio	0.13	0.38	0.62	
Uniform Delay, d1	13.7	15.3	17.4	
Progression Factor	1.01	0.96	0.93	
Incremental Delay, d2	0.3	0.9	2.6	
Delay (s)	14.2	15.5	18.7	
Level of Service	B	B	B	
Approach Delay (s)		17.3		
Approach LOS		B		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		1.00	0.86			1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98			0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)	2168	4006		1118	3968			1150		1118	1176	1000
Flt Permitted	0.95	1.00		0.09	1.00			0.99		0.39	1.00	1.00
Satd. Flow (perm)	2168	4006		102	3968			1139		456	1176	1000
Volume (vph)	261	1816	131	66	2046	308	9	141	26	57	59	110
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	264	1834	132	67	2067	311	9	142	26	58	60	111
RTOR Reduction (vph)	0	6	0	0	12	0	0	4	0	0	0	0
Lane Group Flow (vph)	264	1960	0	67	2366	0	0	173	0	58	60	111
Turn Type	Prot			Perm			Perm			Perm		pm+ov
Protected Phases	5	2			6			4			4	5
Permitted Phases				6			4			4		4
Actuated Green, G (s)	23.1	115.1		88.0	88.0			25.9		25.9	25.9	49.0
Effective Green, g (s)	23.1	115.1		88.0	88.0			26.9		26.9	26.9	50.0
Actuated g/C Ratio	0.15	0.77		0.59	0.59			0.18		0.18	0.18	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0			5.0		5.0	5.0	4.0
Vehicle Extension (s)	1.5	4.0		4.0	4.0			3.0		3.0	3.0	1.5
Lane Grp Cap (vph)	334	3074		60	2328			204		82	211	360
v/s Ratio Prot	c0.12	0.49			0.60						0.05	0.05
v/s Ratio Perm				c0.66				c0.15		0.13		0.06
v/c Ratio	0.79	0.64		1.12	1.02			0.85		0.71	0.28	0.31
Uniform Delay, d1	61.1	7.9		31.0	31.0			59.6		57.9	53.2	37.2
Progression Factor	1.36	0.08		1.00	1.00			1.00		1.03	1.02	1.09
Incremental Delay, d2	1.1	0.1		151.8	22.8			26.4		23.7	0.7	0.2
Delay (s)	84.3	0.7		182.8	53.8			85.9		83.5	55.3	40.8
Level of Service	F	A		F	D			F		F	E	D
Approach Delay (s)		10.6			57.4			85.9			55.4	
Approach LOS		B			E			F			E	

Intersection Summary			
HCM Average Control Delay	37.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.55	1.00	1.00	0.88
Flpb, ped/bikes	0.96	1.00		0.99	1.00		0.92	1.00	1.00	0.81	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1519	1619		1572	1650		1454	3167	777	1281	3167	1248
Flt Permitted	0.62	1.00		0.40	1.00		0.62	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	994	1619		665	1650		954	3167	777	445	3167	1248
Volume (vph)	105	273	46	74	204	10	43	593	123	40	201	62
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	107	279	47	76	208	10	44	605	126	41	205	63
RTOR Reduction (vph)	0	8	0	0	2	0	0	0	71	0	0	40
Lane Group Flow (vph)	107	318	0	76	216	0	44	605	55	41	205	23
Confl. Peds. (#/hr)	66		43	43		66	111		339	339		111
Confl. Bikes (#/hr)			4			6			18			1
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		6		5	2			8	5		4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	29.0	29.0		37.7	37.7		26.9	26.9	32.1	26.9	26.9	26.9
Effective Green, g (s)	30.4	30.4		39.1	39.1		27.9	27.9	32.6	27.9	27.9	27.9
Actuated g/C Ratio	0.41	0.41		0.52	0.52		0.37	0.37	0.43	0.37	0.37	0.37
Clearance Time (s)	5.4	5.4		3.5	5.4		5.0	5.0	3.5	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	403	656		404	860		355	1178	379	166	1178	464
v/s Ratio Prot		c0.20		0.01	c0.13			c0.19	0.01		0.06	
v/s Ratio Perm	0.11			0.09			0.05		0.06	0.09		0.02
v/c Ratio	0.27	0.49		0.19	0.25		0.12	0.51	0.14	0.25	0.17	0.05
Uniform Delay, d1	14.9	16.5		9.7	9.9		15.5	18.3	12.8	16.3	15.8	15.1
Progression Factor	0.99	0.98		1.00	1.00		1.84	1.87	5.13	1.00	1.00	1.00
Incremental Delay, d2	1.6	2.5		0.2	0.7		0.6	1.3	0.1	3.5	0.3	0.2
Delay (s)	16.3	18.6		10.0	10.6		29.1	35.5	65.7	19.8	16.1	15.3
Level of Service	B	B		A	B		C	D	E	B	B	B
Approach Delay (s)		18.0			10.4			40.1			16.4	
Approach LOS		B			B			D			B	

Intersection Summary			
HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes		1.00	1.00		0.95		1.00	0.96			1.00	0.30
Flpb, ped/bikes		0.95	1.00		0.90		0.61	1.00			1.00	1.00
Frt		1.00	0.85		0.98		1.00	0.99			1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1568	1417		1386		966	2998			3148	420
Flt Permitted		0.93	1.00		0.92		0.50	1.00			0.93	1.00
Satd. Flow (perm)		1471	1417		1285		512	2998			2930	420
Volume (vph)	34	144	17	31	91	20	66	747	50	10	353	21
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	37	155	18	33	98	22	71	803	54	11	380	23
RTOR Reduction (vph)	0	0	18	0	1	0	0	3	0	0	0	9
Lane Group Flow (vph)	0	192	0	0	152	0	71	854	0	0	391	14
Confl. Peds. (#/hr)	570		715	715		570	814		795	795		814
Confl. Bikes (#/hr)			9			12			43			28
Turn Type	Perm		NA	Perm			Perm			Perm		Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)		30.5	0.0		30.5		34.1	34.1			34.1	34.1
Effective Green, g (s)		32.0	0.0		32.0		35.0	35.0			35.0	35.0
Actuated g/C Ratio		0.43	0.00		0.43		0.47	0.47			0.47	0.47
Clearance Time (s)		5.5			5.5		4.9	4.9			4.9	4.9
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		628	0		548		239	1399			1367	196
v/s Ratio Prot								c0.28				
v/s Ratio Perm		c0.13			0.12		0.14				0.13	0.03
v/c Ratio		0.31	0.00		0.28		0.30	0.61			0.29	0.07
Uniform Delay, d1		14.2	37.5		14.0		12.4	14.9			12.3	11.0
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.01	1.03
Incremental Delay, d2		1.3	0.0		1.3		3.2	2.0			0.5	0.7
Delay (s)		15.4	37.5		15.2		15.5	16.9			12.9	12.1
Level of Service		B	D		B		B	B			B	B
Approach Delay (s)		17.3			15.2			16.8			12.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95			0.95			0.95	1.00		0.95	
Frpb, ped/bikes		0.92			0.95			1.00	0.67		0.98	
Flpb, ped/bikes		0.97			0.93			1.00	1.00		1.00	
Frt		0.96			0.98			1.00	0.85		0.99	
Flt Protected		0.99			0.98			1.00	1.00		1.00	
Satd. Flow (prot)		1923			1899			2235	669		2170	
Flt Permitted		0.90			0.77			1.00	1.00		0.93	
Satd. Flow (perm)		1734			1493			2235	669		2022	
Volume (vph)	24	131	51	82	131	33	0	865	215	9	352	20
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	24	134	52	84	134	34	0	883	219	9	359	20
RTOR Reduction (vph)	0	21	0	0	8	0	0	0	67	0	3	0
Lane Group Flow (vph)	0	189	0	0	244	0	0	883	152	0	385	0
Confl. Peds. (#/hr)	138		216	216		138	330		211	211		330
Confl. Bikes (#/hr)			2			2			16			3
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2		2	2		
Actuated Green, G (s)		56.5			56.5			83.0	83.0		83.0	
Effective Green, g (s)		58.0			58.0			84.0	84.0		84.0	
Actuated g/C Ratio		0.39			0.39			0.56	0.56		0.56	
Clearance Time (s)		5.5			5.5			5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		670			577			1252	375		1132	
v/s Ratio Prot								c0.40				
v/s Ratio Perm		0.11			c0.16				0.23		0.19	
v/c Ratio		0.28			0.42			0.71	0.40		0.34	
Uniform Delay, d1		31.7			33.7			24.0	18.8		17.9	
Progression Factor		1.13			1.23			2.04	4.12		1.00	
Incremental Delay, d2		1.0			2.2			1.4	1.4		0.8	
Delay (s)		36.9			43.8			50.4	78.6		18.8	
Level of Service		D			D			D	E		B	
Approach Delay (s)		36.9			43.8			56.0			18.8	
Approach LOS		D			D			E			B	

Intersection Summary			
HCM Average Control Delay	45.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		0.97	0.86		1.00	0.91		1.00	0.86	0.86
Frpb, ped/bikes	1.00	0.98		1.00	0.98		1.00	0.95		1.00	0.98	0.84
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.93	1.00		0.89	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.99	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	2168	3900		2168	3954		1037	2972		996	2961	726
Flt Permitted	0.95	1.00		0.95	1.00		0.44	1.00		0.34	1.00	1.00
Satd. Flow (perm)	2168	3900		2168	3954		475	2972		356	2961	726
Volume (vph)	360	2119	189	107	1980	103	115	586	112	61	254	157
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	379	2231	199	113	2084	108	121	617	118	64	267	165
RTOR Reduction (vph)	0	9	0	0	5	0	0	19	0	0	4	36
Lane Group Flow (vph)	379	2421	0	113	2187	0	121	716	0	64	278	114
Confl. Peds. (#/hr)	220		162	162		220	210		239	239		210
Confl. Bikes (#/hr)			3			2			13			5
Turn Type	Prot			Prot			pm+pt			Perm		pm+ov
Protected Phases	5	2		1	6		3	8			4	5
Permitted Phases							8			4		4
Actuated Green, G (s)	29.6	82.3		11.0	63.7		41.3	41.3		28.3	28.3	57.9
Effective Green, g (s)	29.6	83.8		11.0	65.2		43.2	43.2		30.2	30.2	59.8
Actuated g/C Ratio	0.20	0.56		0.07	0.43		0.29	0.29		0.20	0.20	0.40
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.9		5.9	5.9	4.0
Vehicle Extension (s)	2.0	4.0		2.0	4.0		3.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	428	2179		159	1719		171	856		72	596	309
v/s Ratio Prot	0.17	c0.62		0.05	c0.55		0.04	c0.24			0.09	0.07
v/s Ratio Perm							0.16			0.18		0.08
v/c Ratio	0.89	1.11		0.71	1.27		0.71	0.84		0.89	0.47	0.37
Uniform Delay, d1	58.6	33.1		67.9	42.4		46.3	50.1		58.3	52.8	31.8
Progression Factor	1.20	1.10		0.77	0.63		1.00	1.00		0.96	0.95	2.10
Incremental Delay, d2	2.2	50.7		4.5	124.4		12.6	6.8		65.0	0.2	0.3
Delay (s)	72.4	87.0		56.6	151.2		58.9	56.9		120.8	50.4	66.9
Level of Service	E	F		E	F		E	E		F	D	E
Approach Delay (s)		85.1			146.6			57.2			64.4	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM Average Control Delay	101.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.95			0.97		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1109			1115		1118	2166		1118	2217	
Flt Permitted		0.90			0.84		0.52	1.00		0.14	1.00	
Satd. Flow (perm)		1014			957		610	2166		161	2217	
Volume (vph)	33	58	48	82	65	47	42	1027	269	28	362	21
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	34	60	49	85	67	48	43	1059	277	29	373	22
RTOR Reduction (vph)	0	36	0	0	24	0	0	28	0	0	5	0
Lane Group Flow (vph)	0	107	0	0	176	0	43	1308	0	29	390	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		15.5			15.5		35.1	35.1		35.1	35.1	
Effective Green, g (s)		16.5			16.5		35.5	35.5		35.5	35.5	
Actuated g/C Ratio		0.28			0.28		0.59	0.59		0.59	0.59	
Clearance Time (s)		5.0			5.0		4.4	4.4		4.4	4.4	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		279			263		361	1282		95	1312	
v/s Ratio Prot								c0.60			0.18	
v/s Ratio Perm		0.11			c0.18		0.07			0.18		
v/c Ratio		0.39			0.67		0.12	1.02		0.31	0.30	
Uniform Delay, d1		17.6			19.3		5.4	12.2		6.1	6.1	
Progression Factor		1.00			1.00		0.37	0.46		1.00	1.00	
Incremental Delay, d2		0.9			6.3		0.2	20.6		8.1	0.6	
Delay (s)		18.5			25.7		2.2	26.2		14.2	6.6	
Level of Service		B			C		A	C		B	A	
Approach Delay (s)		18.5			25.7			25.5			7.2	
Approach LOS		B			C			C			A	

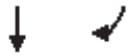
Intersection Summary			
HCM Average Control Delay	21.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.98		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	1116		1118	1157		1118	2224		1118	2229	
Flt Permitted	0.51	1.00		0.37	1.00		0.40	1.00		0.15	1.00	
Satd. Flow (perm)	604	1116		436	1157		473	2224		174	2229	
Volume (vph)	132	259	136	65	245	30	103	1051	37	22	538	10
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	138	270	142	68	255	31	107	1095	39	23	560	10
RTOR Reduction (vph)	0	33	0	0	8	0	0	4	0	0	2	0
Lane Group Flow (vph)	138	379	0	68	278	0	107	1130	0	23	568	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	22.0	22.0		22.0	22.0		27.9	27.9		27.9	27.9	
Effective Green, g (s)	23.6	23.6		23.6	23.6		28.4	28.4		28.4	28.4	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.47	0.47		0.47	0.47	
Clearance Time (s)	5.6	5.6		5.6	5.6		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	238	439		171	455		224	1053		82	1055	
v/s Ratio Prot		c0.34			0.24			c0.51			0.25	
v/s Ratio Perm	0.23			0.16			0.23			0.13		
v/c Ratio	0.58	0.86		0.40	0.61		0.48	1.07		0.28	0.54	
Uniform Delay, d1	14.3	16.7		13.1	14.5		10.8	15.8		9.6	11.2	
Progression Factor	0.46	0.55		1.00	1.00		2.10	2.79		0.95	1.04	
Incremental Delay, d2	1.6	8.2		1.5	2.4		4.3	44.0		8.0	1.9	
Delay (s)	8.2	17.4		14.6	17.0		26.8	88.1		17.1	13.5	
Level of Service	A	B		B	B		C	F		B	B	
Approach Delay (s)		15.1			16.5			82.8			13.6	
Approach LOS		B			B			F			B	

Intersection Summary			
HCM Average Control Delay	45.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		0.97	0.91	1.00		0.97	0.91	1.00	1.00	0.95		1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99		1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95
Satd. Flow (prot)		3072	4550	1417		3072	4550	1417	1583	3146		1583
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95
Satd. Flow (perm)		3072	4550	1417		3072	4550	1417	1583	3146		1583
Volume (vph)	1	157	1769	77	34	243	1322	158	140	987	46	198
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	162	1824	79	35	251	1363	163	144	1018	47	204
RTOR Reduction (vph)	0	0	0	39	0	0	0	60	0	3	0	0
Lane Group Flow (vph)	0	163	1824	40	0	286	1363	103	144	1062	0	204
Turn Type	Prot	Prot		pm+ov	Prot	Prot		pm+ov	Prot			Prot
Protected Phases	1	1	6	3	5	5	2	7	3	8		7
Permitted Phases				6				2				
Actuated Green, G (s)		11.7	31.4	42.4		15.6	35.3	46.3	11.0	41.8		11.0
Effective Green, g (s)		11.7	32.9	43.9		15.6	36.8	47.8	11.0	44.5		11.0
Actuated g/C Ratio		0.10	0.27	0.37		0.13	0.31	0.40	0.09	0.37		0.09
Clearance Time (s)		4.0	5.5	4.0		4.0	5.5	4.0	4.0	6.7		4.0
Vehicle Extension (s)		3.0	5.0	3.0		3.0	5.0	3.0	3.0	4.0		3.0
Lane Grp Cap (vph)		300	1247	566		399	1395	612	145	1167		145
v/s Ratio Prot		0.05	c0.40	0.01		c0.09	c0.30	0.02	0.09	c0.34		c0.13
v/s Ratio Perm				0.02				0.06				
v/c Ratio		0.54	1.46	0.07		0.72	0.98	0.17	0.99	0.91		1.41
Uniform Delay, d1		51.6	43.5	24.8		50.1	41.2	23.3	54.5	35.9		54.5
Progression Factor		0.73	1.35	3.53		0.61	0.92	1.55	1.00	1.00		1.07
Incremental Delay, d2		1.1	210.6	0.0		3.2	12.7	0.1	72.3	10.8		214.9
Delay (s)		39.0	269.2	87.4		33.6	50.6	36.2	126.8	46.7		273.3
Level of Service		D	F	F		C	D	D	F	D		F
Approach Delay (s)			244.1				46.6			56.2		
Approach LOS			F				D			E		

Intersection Summary			
HCM Average Control Delay	122.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1700	1700
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.95	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3167	1417
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3167	1417
Volume (vph)	570	82
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	588	85
RTOR Reduction (vph)	0	53
Lane Group Flow (vph)	588	32
Turn Type		Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	41.8	41.8
Effective Green, g (s)	44.5	44.5
Actuated g/C Ratio	0.37	0.37
Clearance Time (s)	6.7	6.7
Vehicle Extension (s)	4.0	4.0
Lane Grp Cap (vph)	1174	525
v/s Ratio Prot	0.19	
v/s Ratio Perm		0.02
v/c Ratio	0.50	0.06
Uniform Delay, d1	29.2	24.3
Progression Factor	0.97	1.33
Incremental Delay, d2	0.4	0.1
Delay (s)	28.7	32.4
Level of Service	C	C
Approach Delay (s)	86.0	
Approach LOS	F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.86		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.99		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4533		1583	5673		1583	3092		1583	3082	
Flt Permitted	0.13	1.00		0.11	1.00		0.42	1.00		0.13	1.00	
Satd. Flow (perm)	210	4533		186	5673		698	3092		215	3082	
Volume (vph)	71	1935	50	69	1980	149	65	833	155	137	476	103
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	76	2059	53	73	2106	159	69	886	165	146	506	110
RTOR Reduction (vph)	0	3	0	0	13	0	0	17	0	0	1	0
Lane Group Flow (vph)	76	2109	0	73	2252	0	69	1034	0	146	615	0
Turn Type	Perm			pm+pt			Perm			pm+pt		
Protected Phases		2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	30.8	30.8		41.4	41.4		25.6	25.6		38.2	38.2	
Effective Green, g (s)	31.8	31.8		42.4	42.4		27.0	27.0		39.6	39.6	
Actuated g/C Ratio	0.35	0.35		0.47	0.47		0.30	0.30		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.5	5.0		5.4	5.4		3.5	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	1602		190	2673		209	928		225	1356	
v/s Ratio Prot		c0.47		0.03	c0.40			c0.33		c0.06	0.20	
v/s Ratio Perm	0.36			0.15			0.10			0.22		
v/c Ratio	1.03	1.32		0.38	0.84		0.33	1.11		0.65	0.45	
Uniform Delay, d1	29.1	29.1		20.3	20.9		24.5	31.5		20.2	17.6	
Progression Factor	0.62	0.65		2.11	1.77		0.83	0.91		1.00	1.00	
Incremental Delay, d2	67.5	144.1		0.5	1.3		3.1	62.8		6.3	1.1	
Delay (s)	85.5	163.1		43.4	38.2		23.3	91.3		26.5	18.7	
Level of Service	F	F		D	D		C	F		C	B	
Approach Delay (s)		160.4			38.4			87.1			20.2	
Approach LOS		F			D			F			C	

Intersection Summary			
HCM Average Control Delay	86.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4550	1417	1583	4550	1417	1583	3167	1417	1583	3093	
Flt Permitted	0.12	1.00	1.00	0.12	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	206	4550	1417	207	4550	1417	1583	3167	1417	1583	3093	
Volume (vph)	176	1383	34	64	1401	207	104	735	126	120	432	79
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	180	1411	35	65	1430	211	106	750	129	122	441	81
RTOR Reduction (vph)	0	0	19	0	0	51	0	0	13	0	18	0
Lane Group Flow (vph)	180	1411	16	65	1430	160	106	750	116	122	504	0
Turn Type	pm+pt		pm+ov	pm+pt		pm+ov	Prot		pm+ov	Prot		
Protected Phases	1	6	3	5	2	7	3	8	5	7	4	
Permitted Phases	6		6	2		2			8			
Actuated Green, G (s)	37.0	30.5	40.6	36.6	30.3	36.8	10.1	28.6	34.9	6.5	25.0	
Effective Green, g (s)	38.4	32.4	42.0	38.0	32.2	38.2	9.6	29.8	35.6	6.0	26.2	
Actuated g/C Ratio	0.43	0.36	0.47	0.42	0.36	0.42	0.11	0.33	0.40	0.07	0.29	
Clearance Time (s)	3.5	5.9	3.5	3.5	5.9	3.5	3.5	5.2	3.5	3.5	5.2	
Vehicle Extension (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)	180	1638	661	176	1628	664	169	1049	623	106	900	
v/s Ratio Prot	c0.07	0.31	0.00	0.02	0.31	0.02	0.07	c0.24	0.01	c0.08	0.16	
v/s Ratio Perm	c0.36		0.01	0.13		0.10			0.07			
v/c Ratio	1.00	0.86	0.02	0.37	0.88	0.24	0.63	0.71	0.19	1.15	0.56	
Uniform Delay, d1	21.7	26.7	12.9	18.0	27.1	16.6	38.5	26.4	17.8	42.0	27.0	
Progression Factor	1.87	0.22	0.04	1.00	1.00	1.00	1.00	1.00	1.00	1.41	0.74	
Incremental Delay, d2	33.9	1.7	0.0	1.3	7.1	0.2	7.1	2.9	0.1	128.1	1.2	
Delay (s)	74.3	7.6	0.5	19.3	34.1	16.8	45.6	29.3	17.9	187.4	21.2	
Level of Service	E	A	A	B	C	B	D	C	B	F	C	
Approach Delay (s)		14.8			31.4			29.5			52.7	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.84	1.00	0.97		1.00	1.00	
Flpb, ped/bikes	0.86	1.00		0.89	1.00	1.00	0.93	1.00		0.97	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1369	1646		1417	1667	1196	1479	2977		1528	3141	
Flt Permitted	0.72	1.00		0.68	1.00	1.00	0.47	1.00		0.36	1.00	
Satd. Flow (perm)	1039	1646		1016	1667	1196	733	2977		574	3141	
Volume (vph)	26	106	5	116	52	31	8	505	152	89	438	12
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	28	113	5	123	55	33	9	537	162	95	466	13
RTOR Reduction (vph)	0	2	0	0	0	24	0	38	0	0	3	0
Lane Group Flow (vph)	28	116	0	123	55	9	9	661	0	95	476	0
Confl. Peds. (#/hr)	130		66	66		130	66		85	85		66
Confl. Bikes (#/hr)			1			1			5			14
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2			2		
Actuated Green, G (s)	20.2	20.2		20.2	20.2	20.2	45.3	45.3		45.3	45.3	
Effective Green, g (s)	21.0	21.0		21.0	21.0	21.0	46.0	46.0		46.0	46.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28	0.61	0.61		0.61	0.61	
Clearance Time (s)	4.8	4.8		4.8	4.8	4.8	4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	291	461		284	467	335	450	1826		352	1926	
v/s Ratio Prot		0.07			0.03			c0.22			0.15	
v/s Ratio Perm	0.03			c0.12		0.01	0.01			0.17		
v/c Ratio	0.10	0.25		0.43	0.12	0.03	0.02	0.36		0.27	0.25	
Uniform Delay, d1	20.0	20.9		22.1	20.1	19.6	5.7	7.2		6.7	6.6	
Progression Factor	1.00	1.00		0.93	0.97	1.07	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.3		4.7	0.5	0.2	0.1	0.6		1.9	0.3	
Delay (s)	20.6	22.2		25.2	20.1	21.1	5.8	7.8		8.6	6.9	
Level of Service	C	C		C	C	C	A	A		A	A	
Approach Delay (s)		21.9			23.2			7.7			7.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				1.00	1.00		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes				1.00	0.89		1.00	1.00	0.81	1.00	1.00	
Flpb, ped/bikes				1.00	1.00		0.98	1.00	1.00	0.94	1.00	
Frt				1.00	0.86		1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1118	901		1094	2235	807	1053	2233	
Flt Permitted				0.95	1.00		0.51	1.00	1.00	0.34	1.00	
Satd. Flow (perm)				1118	901		583	2235	807	373	2233	
Volume (vph)	0	0	0	70	4	69	3	716	164	55	403	2
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	72	4	71	3	738	169	57	415	2
RTOR Reduction (vph)	0	0	0	0	50	0	0	0	68	0	0	0
Lane Group Flow (vph)	0	0	0	72	25	0	3	738	101	57	417	0
Confl. Peds. (#/hr)	55					55	20		161	161		20
Confl. Bikes (#/hr)						1			14			
Turn Type	Split			Perm			Perm		Perm	custom		
Protected Phases	3	3			4			6				
Permitted Phases				4			6		6	2	2	
Actuated Green, G (s)				21.0	21.0		44.4	44.4	44.4	44.4	44.4	
Effective Green, g (s)				22.0	22.0		45.0	45.0	45.0	45.0	45.0	
Actuated g/C Ratio				0.29	0.29		0.60	0.60	0.60	0.60	0.60	
Clearance Time (s)				5.0	5.0		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)				3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)				328	264		350	1341	484	224	1340	
v/s Ratio Prot					0.03			c0.33				
v/s Ratio Perm				c0.06			0.01		0.13	0.15	0.19	
v/c Ratio				0.22	0.09		0.01	0.55	0.21	0.25	0.31	
Uniform Delay, d1				20.0	19.3		6.0	9.0	6.9	7.1	7.4	
Progression Factor				1.71	4.87		0.42	1.12	2.94	1.00	1.00	
Incremental Delay, d2				0.3	0.1		0.0	0.1	0.1	2.7	0.6	
Delay (s)				34.5	94.0		2.6	10.1	20.2	9.8	8.0	
Level of Service				C	F		A	B	C	A	A	
Approach Delay (s)		0.0			64.8			12.0			8.2	
Approach LOS		A			E			B			A	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		1.00	0.86		1.00	0.95	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	0.97		1.00	0.98		1.00	1.00	0.67	1.00	1.00	0.86
Flpb, ped/bikes	1.00	1.00		0.99	1.00		0.91	1.00	1.00	0.79	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3881		1111	3928		1018	2235	666	887	1176	1522
Flt Permitted	0.95	1.00		0.06	1.00		0.49	1.00	1.00	0.56	1.00	1.00
Satd. Flow (perm)	2168	3881		69	3928		528	2235	666	521	1176	1522
Volume (vph)	547	2633	183	43	2043	136	75	300	72	71	115	282
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	582	2801	195	46	2173	145	80	319	77	76	122	300
RTOR Reduction (vph)	0	7	0	0	7	0	0	0	1	0	0	0
Lane Group Flow (vph)	582	2989	0	46	2311	0	80	319	76	76	122	300
Confl. Peds. (#/hr)	215		164	164		215	178		281	281		178
Confl. Bikes (#/hr)			8			7			18			3
Turn Type	Prot			Perm			pm+pt		Perm	Perm		pm+ov
Protected Phases	1	6			2		3	8			4	1
Permitted Phases				2			8		8	4		4
Actuated Green, G (s)	29.1	100.1		67.0	67.0		39.1	39.1	39.1	26.5	26.5	55.6
Effective Green, g (s)	29.1	101.1		68.0	68.0		40.9	40.9	40.9	28.3	28.3	57.4
Actuated g/C Ratio	0.19	0.67		0.45	0.45		0.27	0.27	0.27	0.19	0.19	0.38
Clearance Time (s)	4.0	5.0		5.0	5.0		4.0	5.8	5.8	5.8	5.8	4.0
Vehicle Extension (s)	2.0	4.0		4.0	4.0		2.0	3.0	3.0	3.0	3.0	2.0
Lane Grp Cap (vph)	421	2616		31	1781		172	609	182	98	222	623
v/s Ratio Prot	c0.27	0.77			0.59		0.03	c0.14			0.10	0.09
v/s Ratio Perm				c0.67			0.10		0.11	c0.15		0.10
v/c Ratio	1.38	1.14		1.48	1.30		0.47	0.52	0.42	0.78	0.55	0.48
Uniform Delay, d1	60.5	24.5		41.0	41.0		43.9	46.3	44.8	57.8	55.1	35.0
Progression Factor	1.04	1.03		0.47	0.54		1.00	1.00	1.00	1.02	1.01	1.26
Incremental Delay, d2	173.5	64.7		232.7	134.4		0.7	0.8	1.6	30.2	2.7	0.2
Delay (s)	236.3	89.9		251.9	156.6		44.6	47.1	46.4	88.9	58.6	44.4
Level of Service	F	F		F	F		D	D	D	F	E	D
Approach Delay (s)		113.7			158.5			46.6			54.7	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	120.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	121.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0		4.0		4.0			
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			
Frt		0.99		1.00	1.00		1.00		0.85			
Flt Protected		1.00		0.95	1.00		0.95		1.00			
Satd. Flow (prot)		3125		1583	3167		1583		1417			
Flt Permitted		1.00		0.05	1.00		0.76		1.00			
Satd. Flow (perm)		3125		90	3167		1262		1417			
Volume (vph)	0	1953	187	376	1135	0	62	0	465	0	0	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2013	193	388	1170	0	64	0	479	0	0	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	162	0	0	0
Lane Group Flow (vph)	0	2200	0	388	1170	0	64	0	317	0	0	0
Turn Type				pm+pt			custom		Over	Perm		
Protected Phases		2		1	6				1		4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		69.2		101.1	101.1		9.9		27.9			
Effective Green, g (s)		70.2		102.1	102.1		9.9		27.9			
Actuated g/C Ratio		0.59		0.85	0.85		0.08		0.23			
Clearance Time (s)		5.0		4.0	5.0		4.0		4.0			
Vehicle Extension (s)		4.0		3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)		1828		424	2695		104		329			
v/s Ratio Prot		c0.70		0.21	0.37				c0.22			
v/s Ratio Perm				0.57			c0.05					
v/c Ratio		1.20		0.92	0.43		0.62		0.96			
Uniform Delay, d1		24.9		40.4	2.1		53.2		45.5			
Progression Factor		1.00		1.21	0.17		1.00		1.00			
Incremental Delay, d2		97.0		21.1	0.4		10.3		39.7			
Delay (s)		121.9		69.8	0.8		63.6		85.2			
Level of Service		F		E	A		E		F			
Approach Delay (s)		121.9			18.0			82.7			0.0	
Approach LOS		F			B			F			A	

Intersection Summary			
HCM Average Control Delay	79.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		0.97	0.86		1.00	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.95
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3981		2168	4034		1084	2235	967	1112	2235	1674
Flt Permitted	0.95	1.00		0.95	1.00		0.56	1.00	1.00	0.22	1.00	1.00
Satd. Flow (perm)	2168	3981		2168	4034		635	2235	967	263	2235	1674
Volume (vph)	489	3636	138	68	2429	43	221	612	147	144	136	197
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	532	3952	150	74	2640	47	240	665	160	157	148	214
RTOR Reduction (vph)	0	3	0	0	2	0	0	0	0	0	0	12
Lane Group Flow (vph)	532	4099	0	74	2685	0	240	665	160	157	148	202
Confl. Peds. (#/hr)	13		99	99		13	48		10	10		48
Confl. Bikes (#/hr)			16			5			13			18
Turn Type	Prot			Prot			pm+pt		pm+ov	Perm		pm+ov
Protected Phases	5	2		1	6		3	8	1		4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	30.0	91.5		5.0	66.5		37.1	37.1	42.1	28.1	28.1	58.1
Effective Green, g (s)	30.0	93.0		5.0	68.0		40.0	40.0	45.0	31.0	31.0	61.0
Actuated g/C Ratio	0.20	0.62		0.03	0.45		0.27	0.27	0.30	0.21	0.21	0.41
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	6.9	4.0	6.9	6.9	4.0
Vehicle Extension (s)	1.0	4.0		1.0	4.0		3.0	2.0	1.0	2.0	2.0	1.0
Lane Grp Cap (vph)	434	2468		72	1829		184	596	316	54	462	681
v/s Ratio Prot	0.25	c1.03		0.03	c0.67		c0.04	0.30	0.02		0.07	0.06
v/s Ratio Perm							0.30		0.15	c0.60		0.06
v/c Ratio	1.23	1.66		1.03	1.47		1.30	1.12	0.51	2.91	0.32	0.30
Uniform Delay, d1	60.0	28.5		72.5	41.0		55.7	55.0	43.3	59.5	50.5	30.0
Progression Factor	0.73	0.43		1.18	0.81		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	103.6	297.5		39.1	211.0		170.6	72.9	0.5	906.4	0.1	0.1
Delay (s)	147.4	309.8		124.5	244.1		226.3	127.9	43.8	965.9	50.7	30.1
Level of Service	F	F		F	F		F	F	D	F	D	C
Approach Delay (s)		291.1			240.9			137.4			319.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	259.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	144.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		0.97	0.81		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00		1.00	0.92		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	4010		2168	4742		1118	2059		1118	2107	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1118	4010		2168	4742		1118	2059		1118	2107	
Volume (vph)	44	2715	176	97	2825	93	140	227	253	261	545	336
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	45	2770	180	99	2883	95	143	232	258	266	556	343
RTOR Reduction (vph)	0	6	0	0	3	0	0	132	0	0	0	0
Lane Group Flow (vph)	45	2944	0	99	2975	0	143	358	0	266	899	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	8.0	67.7		15.8	75.5		17.0	29.2		17.8	30.0	
Effective Green, g (s)	8.0	69.2		15.8	77.0		17.0	31.2		17.8	32.0	
Actuated g/C Ratio	0.05	0.46		0.11	0.51		0.11	0.21		0.12	0.21	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.0	4.0		1.0	4.0		1.0	4.0		1.0	4.0	
Lane Grp Cap (vph)	60	1850		228	2434		127	428		133	449	
v/s Ratio Prot	0.04	c0.73		0.05	c0.63		c0.13	0.17		0.24	c0.43	
v/s Ratio Perm												
v/c Ratio	0.75	1.59		0.43	1.22		1.13	0.84		2.00	2.00	
Uniform Delay, d1	70.0	40.4		62.9	36.5		66.5	56.9		66.1	59.0	
Progression Factor	1.04	1.15		0.55	0.23		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.2	266.2		0.0	100.3		117.7	13.8		475.6	458.9	
Delay (s)	76.8	312.7		34.5	108.6		184.2	70.7		541.7	517.9	
Level of Service	E	F		C	F		F	E		F	F	
Approach Delay (s)		309.1			106.2			96.3			523.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	244.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.56		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4529		1583	4550	1417	1583	3167	1417	1583	3085	
Flt Permitted	0.11	1.00		0.95	1.00	1.00	0.32	1.00	1.00	0.15	1.00	
Satd. Flow (perm)	190	4529		1583	4550	1417	529	3167	1417	243	3085	
Volume (vph)	55	1754	55	86	1981	123	136	935	239	54	497	104
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	57	1827	57	90	2064	128	142	974	249	56	518	108
RTOR Reduction (vph)	0	4	0	0	0	20	0	0	98	0	2	0
Lane Group Flow (vph)	57	1880	0	90	2064	108	142	974	151	56	624	0
Turn Type	Perm			Prot		Perm	Perm		Perm	Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8					4	6		6	2		
Actuated Green, G (s)	34.1	34.1		8.1	45.7	45.7	34.3	34.3	34.3	34.3	34.3	
Effective Green, g (s)	35.1	35.1		7.6	46.7	46.7	35.3	35.3	35.3	35.3	35.3	
Actuated g/C Ratio	0.39	0.39		0.08	0.52	0.52	0.39	0.39	0.39	0.39	0.39	
Clearance Time (s)	5.0	5.0		3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	74	1766		134	2361	735	207	1242	556	95	1210	
v/s Ratio Prot		c0.42		0.06	c0.45			c0.31			0.20	
v/s Ratio Perm	0.30					0.08	0.27		0.11	0.23		
v/c Ratio	0.77	1.06		0.67	0.87	0.15	0.69	0.78	0.27	0.59	0.52	
Uniform Delay, d1	23.9	27.4		40.0	19.1	11.3	22.7	24.0	18.6	21.6	20.8	
Progression Factor	0.73	0.72		0.90	1.70	2.37	0.52	0.55	0.25	1.00	1.00	
Incremental Delay, d2	43.5	38.7		7.2	2.8	0.2	8.0	2.3	0.5	24.1	1.6	
Delay (s)	61.1	58.4		43.4	35.2	27.0	19.9	15.5	5.2	45.7	22.4	
Level of Service	E	E		D	D	C	B	B	A	D	C	
Approach Delay (s)		58.4			35.1			14.1			24.3	
Approach LOS		E			D			B			C	

Intersection Summary			
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	1583	4524		1583	3106		1583	3167	1417
Flt Permitted	0.18	1.00	1.00	0.11	1.00		0.95	1.00		0.14	1.00	1.00
Satd. Flow (perm)	297	4550	1417	185	4524		1583	3106		238	3167	1417
Volume (vph)	111	1587	92	102	1177	47	288	1137	167	17	535	114
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	113	1619	94	104	1201	48	294	1160	170	17	546	116
RTOR Reduction (vph)	0	0	50	0	4	0	0	13	0	0	0	20
Lane Group Flow (vph)	113	1619	44	104	1245	0	294	1317	0	17	546	96
Turn Type	Perm		pm+ov	pm+pt			Prot			Perm		Perm
Protected Phases		6	3	5	2		3	8			4	
Permitted Phases	6		6	2						4		4
Actuated Green, G (s)	30.5	30.5	41.0	38.5	38.5		10.5	41.5		27.5	27.5	27.5
Effective Green, g (s)	32.0	32.0	42.0	40.0	40.0		10.0	42.0		28.0	28.0	28.0
Actuated g/C Ratio	0.36	0.36	0.47	0.44	0.44		0.11	0.47		0.31	0.31	0.31
Clearance Time (s)	5.5	5.5	3.5	3.0	5.5		3.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0		2.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	106	1618	724	144	2011		176	1449		74	985	441
v/s Ratio Prot		0.36	0.01	0.03	c0.28		c0.19	c0.42			0.17	
v/s Ratio Perm	c0.38		0.02	0.29						0.07		0.07
v/c Ratio	1.07	1.00	0.06	0.72	0.62		1.67	0.91		0.23	0.55	0.22
Uniform Delay, d1	29.0	29.0	13.2	20.0	19.2		40.0	22.2		23.0	25.8	22.9
Progression Factor	1.00	1.00	1.00	2.06	1.11		1.00	1.00		0.74	0.77	0.70
Incremental Delay, d2	106.3	22.5	0.0	8.7	0.7		325.3	10.0		6.0	1.9	1.0
Delay (s)	135.3	51.5	13.2	49.7	22.0		365.3	32.2		23.0	21.7	17.0
Level of Service	F	D	B	D	C		F	C		C	C	B
Approach Delay (s)		54.7			24.1			92.5			20.9	
Approach LOS		D			C			F			C	

Intersection Summary			
HCM Average Control Delay	54.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	0.86	0.86	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	
Satd. Flow (prot)	1303	3724		1304	3747	1141	1304	2608	1144	2243	2266	
Flt Permitted	0.08	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	
Satd. Flow (perm)	105	3724		1304	3747	1141	1304	2608	1144	2243	2266	
Volume (vph)	32	1703	56	108	1597	903	89	232	149	1277	238	28
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	34	1812	60	115	1699	961	95	247	159	1359	253	30
RTOR Reduction (vph)	0	2	0	0	0	407	0	0	0	0	2	0
Lane Group Flow (vph)	34	1870	0	115	1699	554	95	247	159	906	734	0
Confl. Peds. (#/hr)	5		9	9		5	56		6	6		56
Confl. Bikes (#/hr)			4			5			8			8
Turn Type	Perm			Prot		Perm	Split		pm+ov	Split		
Protected Phases		6		5	2		3	3	5	4	4	
Permitted Phases	6					2			3			
Actuated Green, G (s)	56.1	56.1		10.0	70.1	70.1	14.9	14.9	24.9	50.0	50.0	
Effective Green, g (s)	57.1	57.1		10.0	71.1	71.1	15.9	15.9	25.9	51.0	51.0	
Actuated g/C Ratio	0.38	0.38		0.07	0.47	0.47	0.11	0.11	0.17	0.34	0.34	
Clearance Time (s)	5.0	5.0		4.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		2.0	4.0	4.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)	40	1418		87	1776	541	138	276	198	763	770	
v/s Ratio Prot		c0.50		c0.09	0.45		0.07	c0.09	0.05	c0.40	0.32	
v/s Ratio Perm	0.32					0.49			0.09			
v/c Ratio	0.85	1.32		1.32	0.96	1.02	0.69	0.89	0.80	1.19	1.12dl	
Uniform Delay, d1	42.5	46.4		70.0	38.0	39.5	64.7	66.2	59.6	49.5	48.3	
Progression Factor	1.43	1.42		1.08	1.07	4.30	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	83.8	147.1		152.1	1.8	18.3	10.8	28.0	19.5	97.3	21.8	
Delay (s)	144.5	212.9		227.7	42.5	188.0	75.5	94.2	79.1	146.8	70.1	
Level of Service	F	F		F	D	F	E	F	E	F	E	
Approach Delay (s)		211.7			100.6			85.8			112.4	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	133.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00			0.95	
Frt	1.00	0.99		1.00	1.00	0.85		0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.99	
Satd. Flow (prot)	1583	4494		1583	3167	1417		1628			3101	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.64			0.64	
Satd. Flow (perm)	1583	4494		1583	3167	1417		1054			2027	
Volume (vph)	115	982	87	32	826	56	111	218	19	103	236	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	128	1091	97	36	918	62	123	242	21	114	262	17
RTOR Reduction (vph)	0	9	0	0	0	34	0	1	0	0	4	0
Lane Group Flow (vph)	128	1179	0	36	918	28	0	385	0	0	389	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases						2						
Actuated Green, G (s)	11.6	48.1		3.6	40.1	40.1		26.0			26.0	
Effective Green, g (s)	11.6	48.4		3.6	40.4	40.4		26.0			26.0	
Actuated g/C Ratio	0.13	0.54		0.04	0.45	0.45		0.29			0.29	
Clearance Time (s)	4.0	4.3		4.0	4.3	4.3		4.0			4.0	
Vehicle Extension (s)	3.0	5.7		3.0	5.5	5.5		3.0			3.0	
Lane Grp Cap (vph)	204	2417		63	1422	636		304			586	
v/s Ratio Prot	c0.08	0.26		0.02	c0.29							
v/s Ratio Perm						0.02		c0.36			0.19	
v/c Ratio	0.63	0.49		0.57	0.65	0.04		1.27			22.80dl	
Uniform Delay, d1	37.2	13.0		42.4	19.2	13.9		32.0			28.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	5.9	0.7		11.9	2.3	0.1		142.9			2.8	
Delay (s)	43.1	13.7		54.4	21.5	14.1		174.9			31.0	
Level of Service	D	B		D	C	B		F			C	
Approach Delay (s)		16.6			22.2			174.9			31.0	
Approach LOS		B			C			F			C	

Intersection Summary			
HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	0.91	1.00	0.97	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.96	1.00	1.00	0.96	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1291	3729		1296	3692		1251	2608	1062	1254	2456	
Flt Permitted	0.10	1.00		0.12	1.00		0.32	1.00	1.00	0.42	1.00	
Satd. Flow (perm)	136	3729		163	3692		416	2608	1062	557	2456	
Volume (vph)	38	1433	27	50	1516	65	110	359	147	179	385	100
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	40	1524	29	53	1613	69	117	382	156	190	410	106
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	25	0	15	0
Lane Group Flow (vph)	40	1552	0	53	1679	0	117	382	131	190	501	0
Confl. Peds. (#/hr)	67		48	48		67	40		47	47		40
Confl. Bikes (#/hr)			7			2			2			5
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	95.5	95.5		95.5	95.5		46.0	46.0	46.0	46.0	46.0	
Effective Green, g (s)	96.0	96.0		96.0	96.0		46.0	46.0	46.0	46.0	46.0	
Actuated g/C Ratio	0.64	0.64		0.64	0.64		0.31	0.31	0.31	0.31	0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	87	2387		104	2363		128	800	326	171	753	
v/s Ratio Prot		0.42			c0.45			0.15			0.20	
v/s Ratio Perm	0.29			0.32			0.28		0.12	c0.34		
v/c Ratio	0.46	0.65		0.51	0.71		0.91	0.48	0.40	1.11	0.67	
Uniform Delay, d1	13.8	16.6		14.4	17.8		50.1	42.2	41.1	52.0	45.3	
Progression Factor	1.00	1.00		1.53	1.67		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	16.5	1.4		5.9	0.6		59.1	2.0	3.7	101.7	4.6	
Delay (s)	30.3	18.0		27.9	30.5		109.2	44.3	44.8	153.7	49.9	
Level of Service	C	B		C	C		F	D	D	F	D	
Approach Delay (s)		18.3			30.4			56.0			77.8	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM Average Control Delay	37.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.93			0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1544			1605		1583	1646		1583	1667	1417
Flt Permitted		0.94			0.85		0.49	1.00		0.39	1.00	1.00
Satd. Flow (perm)		1468			1385		812	1646		649	1667	1417
Volume (vph)	36	89	123	33	94	31	181	475	42	43	384	31
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	97	134	36	102	34	197	516	46	47	417	34
RTOR Reduction (vph)	0	68	0	0	17	0	0	4	0	0	0	12
Lane Group Flow (vph)	0	202	0	0	155	0	197	558	0	47	417	22
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		8			4			2			6	
Permitted Phases	8			4			2			6		6
Actuated Green, G (s)		12.5			12.5		38.7	38.7		38.7	38.7	38.7
Effective Green, g (s)		13.0			13.0		39.0	39.0		39.0	39.0	39.0
Actuated g/C Ratio		0.22			0.22		0.65	0.65		0.65	0.65	0.65
Clearance Time (s)		4.5			4.5		4.3	4.3		4.3	4.3	4.3
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		318			300		528	1070		422	1084	921
v/s Ratio Prot								c0.34			0.25	
v/s Ratio Perm		c0.14			0.11		0.24			0.07		0.02
v/c Ratio		0.63			0.52		0.37	0.52		0.11	0.38	0.02
Uniform Delay, d1		21.3			20.7		4.9	5.6		4.0	4.9	3.7
Progression Factor		1.00			1.00		0.46	0.44		1.00	1.00	1.00
Incremental Delay, d2		4.1			1.5		1.2	1.1		0.5	1.0	0.0
Delay (s)		25.5			22.2		3.4	3.6		4.5	5.9	3.8
Level of Service		C			C		A	A		A	A	A
Approach Delay (s)		25.5			22.2			3.5			5.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1304	3705		1304	3697		1304	1373	1167	1304	1355	
Flt Permitted	0.17	1.00		0.17	1.00		0.26	1.00	1.00	0.29	1.00	
Satd. Flow (perm)	239	3705		239	3697		352	1373	1167	392	1355	
Volume (vph)	27	991	81	58	1052	103	109	551	60	22	534	51
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	1032	84	60	1096	107	114	574	62	23	556	53
RTOR Reduction (vph)	0	15	0	0	19	0	0	0	15	0	6	0
Lane Group Flow (vph)	28	1101	0	60	1184	0	114	574	47	23	603	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Actuated Green, G (s)	22.4	22.4		22.4	22.4		28.0	28.0	28.0	28.0	28.0	
Effective Green, g (s)	23.0	23.0		23.0	23.0		29.0	29.0	29.0	29.0	29.0	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48	0.48	0.48	0.48	
Clearance Time (s)	4.6	4.6		4.6	4.6		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	
Lane Grp Cap (vph)	92	1420		92	1417		170	664	564	189	655	
v/s Ratio Prot		0.30			c0.32			0.42			c0.45	
v/s Ratio Perm	0.12			0.25			0.32		0.04	0.06		
v/c Ratio	0.30	0.78		0.65	0.84		0.67	0.86	0.08	0.12	0.92	
Uniform Delay, d1	12.9	16.2		15.2	16.8		11.8	13.8	8.3	8.5	14.4	
Progression Factor	1.00	1.00		1.36	1.46		1.00	1.00	1.00	0.75	0.80	
Incremental Delay, d2	8.3	4.2		28.4	5.5		19.1	14.1	0.3	1.2	19.1	
Delay (s)	21.3	20.4		49.1	30.0		30.9	27.8	8.6	7.6	30.7	
Level of Service	C	C		D	C		C	C	A	A	C	
Approach Delay (s)		20.4			30.9			26.7			29.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	116.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.86	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4498		1583	5733	1417	1583	3054		1583	3167	1417
Flt Permitted	0.10	1.00		0.20	1.00	1.00	0.35	1.00		0.12	1.00	1.00
Satd. Flow (perm)	167	4498		335	5733	1417	589	3054		208	3167	1417
Volume (vph)	22	941	78	70	1491	272	404	860	268	287	530	82
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	22	960	80	71	1521	278	412	878	273	293	541	84
RTOR Reduction (vph)	0	11	0	0	0	19	0	33	0	0	0	12
Lane Group Flow (vph)	22	1029	0	71	1521	259	412	1118	0	293	541	72
Turn Type	Perm			Perm		pm+ov	pm+pt			pm+pt		Perm
Protected Phases		6			2	7	3	8		7	4	
Permitted Phases	6			2		2	8			4		4
Actuated Green, G (s)	39.0	39.0		39.0	39.0	45.0	36.1	30.1		36.1	30.1	30.1
Effective Green, g (s)	40.0	40.0		40.0	40.0	46.0	38.0	32.0		38.0	32.0	32.0
Actuated g/C Ratio	0.44	0.44		0.44	0.44	0.51	0.42	0.36		0.42	0.36	0.36
Clearance Time (s)	5.0	5.0		5.0	5.0	4.0	4.0	5.9		4.0	5.9	5.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	74	1999		149	2548	787	315	1086		179	1126	504
v/s Ratio Prot		0.23			c0.27	0.02	0.09	0.37		c0.11	0.17	
v/s Ratio Perm	0.13			0.21		0.16	0.47			c0.58		0.05
v/c Ratio	0.30	0.51		0.48	0.60	0.33	1.31	1.03		1.64	0.48	0.14
Uniform Delay, d1	16.0	18.0		17.6	18.9	12.9	24.9	29.0		23.0	22.5	19.7
Progression Factor	1.00	1.00		1.23	1.26	1.99	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.0	1.0		5.3	0.5	0.1	159.6	35.2		310.5	1.5	0.6
Delay (s)	26.0	19.0		27.0	24.2	25.8	184.6	64.2		333.5	24.0	20.3
Level of Service	C	B		C	C	C	F	E		F	C	C
Approach Delay (s)		19.1			24.6			95.9			122.4	
Approach LOS		B			C			F			F	

Intersection Summary			
HCM Average Control Delay	60.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3739		1304	3747	1237	
Flt Permitted	1.00		0.15	1.00	0.98	
Satd. Flow (perm)	3739		205	3747	1237	
Volume (vph)	1425	21	41	1599	52	76
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1484	22	43	1666	54	79
RTOR Reduction (vph)	1	0	0	0	25	0
Lane Group Flow (vph)	1505	0	43	1666	108	0
Turn Type			Perm			
Protected Phases	6			2	4	
Permitted Phases			2			
Actuated Green, G (s)	69.3		69.3	69.3	11.9	
Effective Green, g (s)	69.4		69.4	69.4	12.6	
Actuated g/C Ratio	0.77		0.77	0.77	0.14	
Clearance Time (s)	4.1		4.1	4.1	4.7	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2883		158	2889	173	
v/s Ratio Prot	0.40			c0.44	c0.09	
v/s Ratio Perm			0.21			
v/c Ratio	0.52		0.27	0.58	0.62	
Uniform Delay, d1	3.9		3.0	4.2	36.5	
Progression Factor	0.35		1.00	1.00	1.00	
Incremental Delay, d2	0.6		4.2	0.8	6.9	
Delay (s)	2.0		7.2	5.1	43.3	
Level of Service	A		A	A	D	
Approach Delay (s)	2.0			5.1	43.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	5.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.98			1.00	0.96
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.91			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	1.00
Satd. Flow (prot)	1297	3736		1289	3738			1202			1339	1123
Flt Permitted	0.11	1.00		0.17	1.00			0.92			0.93	1.00
Satd. Flow (perm)	154	3736		228	3738			1118			1267	1123
Volume (vph)	6	1315	14	33	1625	16	39	10	87	2	3	4
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	1370	15	34	1693	17	41	10	91	2	3	4
RTOR Reduction (vph)	0	1	0	0	1	0	0	31	0	0	0	3
Lane Group Flow (vph)	6	1384	0	34	1709	0	0	111	0	0	5	1
Confl. Peds. (#/hr)	30		38	38		30	24		15	15		24
Confl. Bikes (#/hr)			2			4			2			
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)	66.2	66.2		66.2	66.2			15.8			15.8	15.8
Effective Green, g (s)	66.2	66.2		66.2	66.2			15.8			15.8	15.8
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.18			0.18	0.18
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	113	2748		168	2750			196			222	197
v/s Ratio Prot		0.37			c0.46							
v/s Ratio Perm	0.04			0.15				c0.10			0.00	0.00
v/c Ratio	0.05	0.50		0.20	0.62			0.57			0.02	0.00
Uniform Delay, d1	3.3	5.0		3.7	5.8			34.0			30.7	30.6
Progression Factor	2.55	2.79		0.58	0.55			1.00			1.00	1.00
Incremental Delay, d2	0.4	0.3		2.3	0.9			3.8			0.0	0.0
Delay (s)	8.8	14.3		4.4	4.1			37.7			30.7	30.6
Level of Service	A	B		A	A			D			C	C
Approach Delay (s)		14.2			4.1			37.7			30.7	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3167	1417	1583	3167	3000	
Flt Permitted	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (perm)	3167	1417	1583	3167	3000	
Volume (vph)	1159	479	94	986	226	74
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1246	515	101	1060	243	80
RTOR Reduction (vph)	0	75	0	0	40	0
Lane Group Flow (vph)	1246	440	101	1060	283	0
Turn Type		pt+ov	Prot			
Protected Phases	2	2 4	1	6	4	
Permitted Phases						
Actuated Green, G (s)	44.5	73.9	9.0	41.0	25.5	
Effective Green, g (s)	44.4	73.5	8.5	40.9	25.1	
Actuated g/C Ratio	0.49	0.82	0.09	0.45	0.28	
Clearance Time (s)	3.9		3.5	3.9	3.6	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1562	1157	150	1439	837	
v/s Ratio Prot	c0.39	c0.31	c0.06	0.33	0.09	
v/s Ratio Perm						
v/c Ratio	0.80	0.38	0.67	0.74	0.34	
Uniform Delay, d1	19.0	2.2	39.4	20.1	25.8	
Progression Factor	0.70	0.17	1.00	1.00	1.00	
Incremental Delay, d2	3.6	0.2	11.3	3.4	0.2	
Delay (s)	16.9	0.6	50.7	23.5	26.1	
Level of Service	B	A	D	C	C	
Approach Delay (s)	12.1			25.9	26.1	
Approach LOS	B			C	C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1304	3686		1303	3645		1298	2530		1297	2519	
Flt Permitted	0.13	1.00		0.12	1.00		0.22	1.00		0.29	1.00	
Satd. Flow (perm)	177	3686		170	3645		301	2530		399	2519	
Volume (vph)	82	1108	85	120	1328	89	190	556	86	95	524	82
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	85	1142	88	124	1369	92	196	573	89	98	540	85
RTOR Reduction (vph)	0	10	0	0	8	0	0	13	0	0	14	0
Lane Group Flow (vph)	85	1220	0	124	1453	0	196	649	0	98	611	0
Confl. Peds. (#/hr)	106		44	44		106	78		51	51		78
Confl. Bikes (#/hr)			5			5			5			3
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	34.8	30.0		37.2	31.2		39.5	28.5		32.5	25.0	
Effective Green, g (s)	35.8	31.0		38.2	32.2		40.5	29.5		33.5	26.0	
Actuated g/C Ratio	0.40	0.34		0.42	0.36		0.45	0.33		0.37	0.29	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	131	1270		148	1304		257	829		223	728	
v/s Ratio Prot	0.03	0.33		c0.06	c0.40		c0.09	c0.26		0.04	0.24	
v/s Ratio Perm	0.22			0.30			0.25			0.13		
v/c Ratio	0.65	0.96		0.84	1.11		0.76	0.78		0.44	0.84	
Uniform Delay, d1	20.0	28.9		18.9	28.9		17.7	27.3		19.5	30.0	
Progression Factor	1.30	0.69		1.43	0.77		1.71	1.42		1.00	1.00	
Incremental Delay, d2	9.1	15.7		26.4	60.5		11.4	4.4		1.4	8.4	
Delay (s)	35.1	35.7		53.4	82.8		41.6	43.2		20.9	38.4	
Level of Service	D	D		D	F		D	D		C	D	
Approach Delay (s)		35.6			80.5			42.8			36.1	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM Average Control Delay	52.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.97			0.99			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1510			1570			3134			3156	
Flt Permitted		0.91			0.81			0.90			0.93	
Satd. Flow (perm)		1385			1297			2834			2952	
Volume (vph)	24	45	71	45	74	40	30	838	35	14	813	8
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	26	48	76	48	80	43	32	901	38	15	874	9
RTOR Reduction (vph)	0	49	0	0	16	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	101	0	0	155	0	0	969	0	0	898	0
Confl. Peds. (#/hr)	10		8	8		10	19		14	14		19
Confl. Bikes (#/hr)			6			4			4			3
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.5			14.5			67.1			67.1	
Effective Green, g (s)		14.5			14.5			67.5			67.5	
Actuated g/C Ratio		0.16			0.16			0.75			0.75	
Clearance Time (s)		4.0			4.0			4.4			4.4	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		223			209			2126			2214	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.12			c0.34			0.30	
v/c Ratio		0.45			0.74			0.46			0.41	
Uniform Delay, d1		34.2			36.0			4.3			4.0	
Progression Factor		1.00			1.00			1.00			0.45	
Incremental Delay, d2		1.5			13.2			0.7			0.4	
Delay (s)		35.6			49.2			5.0			2.2	
Level of Service		D			D			A			A	
Approach Delay (s)		35.6			49.2			5.0			2.2	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00		0.91		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		0.99		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1304	2608	1167		3713		1304	2608	1167	1304	2593	
Flt Permitted	0.16	1.00	1.00		1.00		0.20	1.00	1.00	0.23	1.00	
Satd. Flow (perm)	217	2608	1167		3713		274	2608	1167	310	2593	
Volume (vph)	31	602	89	0	1055	67	90	827	57	56	855	34
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	634	94	0	1111	71	95	871	60	59	900	36
RTOR Reduction (vph)	0	0	48	0	6	0	0	0	32	0	3	0
Lane Group Flow (vph)	33	634	46	0	1176	0	95	871	29	59	933	0
Turn Type	Perm		Perm				Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)	54.0	54.0	54.0		54.0		56.0	56.0	56.0	56.0	56.0	
Effective Green, g (s)	55.0	55.0	55.0		55.0		57.0	57.0	57.0	57.0	57.0	
Actuated g/C Ratio	0.46	0.46	0.46		0.46		0.48	0.48	0.48	0.48	0.48	
Clearance Time (s)	5.0	5.0	5.0		5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	99	1195	535		1702		130	1239	554	147	1232	
v/s Ratio Prot		0.24			c0.32			0.33			c0.36	
v/s Ratio Perm	0.15		0.04				0.35		0.02	0.19		
v/c Ratio	0.33	0.53	0.09		0.69		0.73	0.70	0.05	0.40	0.76	
Uniform Delay, d1	20.8	23.3	18.3		25.8		25.3	24.8	17.0	20.4	25.8	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.8	1.7	0.3		2.3		30.1	3.4	0.2	8.0	4.4	
Delay (s)	29.6	24.9	18.7		28.1		55.4	28.2	17.1	28.4	30.2	
Level of Service	C	C	B		C		E	C	B	C	C	
Approach Delay (s)		24.4			28.1			30.1			30.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	3072	4550	1417	1583	3167	1417	1583	3167	1417
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1583	4550	1417	3072	4550	1417	1583	3167	1417	1583	3167	1417
Volume (vph)	151	1177	80	253	1500	209	342	1220	219	300	995	123
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	154	1201	82	258	1531	213	349	1245	223	306	1015	126
RTOR Reduction (vph)	0	0	13	0	0	126	0	0	6	0	0	2
Lane Group Flow (vph)	154	1201	69	258	1531	87	349	1245	217	306	1015	124
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			4			6			2
Actuated Green, G (s)	13.0	37.3	50.3	12.7	37.0	37.0	13.0	37.0	49.7	13.0	37.0	50.0
Effective Green, g (s)	13.0	39.3	52.3	12.7	39.0	39.0	13.0	39.0	51.7	13.0	39.0	52.0
Actuated g/C Ratio	0.11	0.33	0.44	0.11	0.32	0.32	0.11	0.32	0.43	0.11	0.32	0.43
Clearance Time (s)	4.0	6.0	4.0	4.0	6.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Vehicle Extension (s)	3.0	4.7	3.0	3.0	5.0	5.0	3.0	4.5	3.0	3.0	4.6	3.0
Lane Grp Cap (vph)	171	1490	665	325	1479	461	171	1029	658	171	1029	661
v/s Ratio Prot	c0.10	0.26	0.01	0.08	c0.34		c0.22	c0.39	0.03	0.19	0.32	0.02
v/s Ratio Perm			0.04			0.06			0.12			0.07
v/c Ratio	0.90	0.81	0.10	0.79	1.04	0.19	2.04	1.21	0.33	1.79	0.99	0.19
Uniform Delay, d1	52.9	36.9	20.0	52.4	40.5	29.1	53.5	40.5	22.7	53.5	40.2	21.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	41.5	3.7	0.1	12.5	33.0	0.4	488.2	103.6	0.3	377.7	25.0	0.1
Delay (s)	94.4	40.6	20.1	64.9	73.5	29.6	541.7	144.1	22.9	431.2	65.2	21.1
Level of Service	F	D	C	E	E	C	F	F	C	F	E	C
Approach Delay (s)		45.2			67.7			205.6			138.8	
Approach LOS		D			E			F			F	

Intersection Summary			
HCM Average Control Delay	115.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	111.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	3118		1583	3125		1583	4484		1583	3167	1417
Flt Permitted	0.16	1.00		0.17	1.00		0.12	1.00		0.17	1.00	1.00
Satd. Flow (perm)	266	3118		286	3125		202	4484		291	3167	1417
Volume (vph)	170	819	93	100	645	61	193	1048	113	49	981	67
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	172	827	94	101	652	62	195	1059	114	49	991	68
RTOR Reduction (vph)	0	9	0	0	8	0	0	13	0	0	0	36
Lane Group Flow (vph)	172	912	0	101	706	0	195	1160	0	49	991	32
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		pm+ov
Protected Phases	1	6		5	2		3	8		7	4	1
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)	32.6	24.1		29.0	22.3		45.7	37.6		38.3	33.7	42.2
Effective Green, g (s)	33.1	25.1		29.5	23.3		46.6	38.6		38.8	34.7	42.7
Actuated g/C Ratio	0.37	0.28		0.33	0.26		0.52	0.43		0.43	0.39	0.47
Clearance Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	3.5
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	4.3		3.0	4.6	3.0
Lane Grp Cap (vph)	215	870		183	809		227	1923		184	1221	735
v/s Ratio Prot	c0.07	c0.29		0.04	0.23		c0.08	0.26		0.01	0.31	0.00
v/s Ratio Perm	0.22			0.14			c0.37			0.10		0.02
v/c Ratio	0.80	1.05		0.55	0.87		0.86	0.60		0.27	0.81	0.04
Uniform Delay, d1	21.9	32.5		23.7	31.9		16.6	19.8		15.5	24.7	12.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	18.8	43.8		3.6	12.5		26.0	0.7		0.8	4.7	0.0
Delay (s)	40.8	76.3		27.3	44.4		42.7	20.5		16.2	29.4	12.7
Level of Service	D	E		C	D		D	C		B	C	B
Approach Delay (s)		70.7			42.3			23.6			27.8	
Approach LOS		E			D			C			C	

Intersection Summary			
HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	1.00		1.00	0.99			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1583	3157		1583	3148			1615			1630	
Flt Permitted	0.12	1.00		0.27	1.00			0.96			0.93	
Satd. Flow (perm)	206	3157		445	3148			1555			1523	
Volume (vph)	29	846	17	94	1242	50	11	86	24	62	260	35
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	30	872	18	97	1280	52	11	89	25	64	268	36
RTOR Reduction (vph)	0	2	0	0	4	0	0	17	0	0	8	0
Lane Group Flow (vph)	30	888	0	97	1328	0	0	108	0	0	360	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	32.8	32.8		32.8	32.8			18.0			18.0	
Effective Green, g (s)	33.1	33.1		33.1	33.1			18.9			18.9	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.31			0.31	
Clearance Time (s)	4.3	4.3		4.3	4.3			4.9			4.9	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	114	1742		245	1737			490			480	
v/s Ratio Prot		0.28			c0.42							
v/s Ratio Perm	0.15			0.22				0.07			c0.24	
v/c Ratio	0.26	0.51		0.40	0.76			0.22			0.75	
Uniform Delay, d1	7.1	8.4		7.7	10.4			15.1			18.4	
Progression Factor	0.72	0.61		1.00	1.00			1.00			1.00	
Incremental Delay, d2	5.2	1.0		4.7	3.3			0.2			6.3	
Delay (s)	10.3	6.1		12.4	13.7			15.4			24.8	
Level of Service	B	A		B	B			B			C	
Approach Delay (s)		6.2			13.6			15.4			24.8	
Approach LOS		A			B			B			C	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					4.0			4.0		4.0	4.0	
Lane Util. Factor					1.00			0.95		1.00	0.95	
Frpb, ped/bikes					1.00			1.00		1.00	1.00	
Flpb, ped/bikes					1.00			1.00		0.98	1.00	
Frt					0.96			1.00		1.00	1.00	
Flt Protected					0.97			1.00		0.95	1.00	
Satd. Flow (prot)					1545			3140		1555	3167	
Flt Permitted					0.79			1.00		0.25	1.00	
Satd. Flow (perm)					1266			3140		406	3167	
Volume (vph)	0	0	0	142	0	61	0	863	27	31	1451	0
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	151	0	65	0	918	29	33	1544	0
RTOR Reduction (vph)	0	0	0	0	15	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	201	0	0	945	0	33	1544	0
Confl. Peds. (#/hr)							10		32	32		10
Confl. Bikes (#/hr)			1						2			4
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)					30.5			61.0		61.0	61.0	
Effective Green, g (s)					31.0			61.0		61.0	61.0	
Actuated g/C Ratio					0.31			0.61		0.61	0.61	
Clearance Time (s)					4.5			4.0		4.0	4.0	
Vehicle Extension (s)					3.0			5.0		5.0	5.0	
Lane Grp Cap (vph)					392			1915		248	1932	
v/s Ratio Prot								0.30			c0.49	
v/s Ratio Perm					c0.16					0.08		
v/c Ratio					0.51			0.49		0.13	0.80	
Uniform Delay, d1					28.3			10.9		8.3	14.8	
Progression Factor					1.00			1.00		1.00	1.00	
Incremental Delay, d2					4.7			0.9		1.1	3.6	
Delay (s)					33.0			11.8		9.4	18.4	
Level of Service					C			B		A	B	
Approach Delay (s)		0.0			33.0			11.8			18.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.94	1.00	0.99		1.00	1.00	0.95	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3072	3167	1325	3072	3109		1583	3167	1353	1582	4330	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.10	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	3072	3167	1325	3072	3109		165	3167	1353	284	4330	
Volume (vph)	81	576	53	269	965	70	99	792	196	70	1187	266
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	84	594	55	277	995	72	102	816	202	72	1224	274
RTOR Reduction (vph)	0	0	2	0	4	0	0	0	80	0	30	0
Lane Group Flow (vph)	84	594	53	277	1063	0	102	816	122	72	1468	0
Confl. Peds. (#/hr)	73		41	41		73	67		26	26		67
Confl. Bikes (#/hr)			3			4			1			4
Turn Type	Prot		pm+ov	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases			2				8		8	4		
Actuated Green, G (s)	6.4	48.8	55.8	8.0	50.4		45.9	38.9	46.9	43.1	37.5	
Effective Green, g (s)	6.4	50.1	57.1	8.0	51.7		47.3	40.3	48.3	44.5	38.9	
Actuated g/C Ratio	0.05	0.42	0.48	0.07	0.43		0.39	0.34	0.40	0.37	0.32	
Clearance Time (s)	4.0	5.3	4.0	4.0	5.3		4.0	5.4	4.0	4.0	5.4	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	164	1322	675	205	1339		148	1064	590	166	1404	
v/s Ratio Prot	0.03	c0.19	0.00	c0.09	c0.34		c0.04	0.26	0.01	0.02	c0.34	
v/s Ratio Perm			0.04				0.23		0.08	0.14		
v/c Ratio	0.51	0.45	0.08	1.35	0.79		0.69	0.77	0.21	0.43	1.05	
Uniform Delay, d1	55.3	25.1	17.1	56.0	29.5		28.6	35.6	23.4	26.7	40.5	
Progression Factor	0.72	0.35	0.34	0.90	1.30		1.48	1.36	3.55	1.00	1.00	
Incremental Delay, d2	2.5	1.0	0.0	177.3	3.2		9.9	4.2	0.1	1.8	36.8	
Delay (s)	42.5	9.7	5.8	227.9	41.5		52.2	52.7	83.1	28.5	77.3	
Level of Service	D	A	A	F	D		D	D	F	C	E	
Approach Delay (s)		13.2			79.9			58.1			75.1	
Approach LOS		B			E			E			E	

Intersection Summary			
HCM Average Control Delay	62.9	HCM Level of Service	E
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	3100		1583	3167	1417	1583	3059	
Flt Permitted	0.13	1.00	1.00	0.30	1.00		0.23	1.00	1.00	0.36	1.00	
Satd. Flow (perm)	222	3167	1417	497	3100		382	3167	1417	602	3059	
Volume (vph)	64	671	104	217	915	148	72	552	49	94	623	183
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	67	706	109	228	963	156	76	581	52	99	656	193
RTOR Reduction (vph)	0	0	58	0	11	0	0	0	28	0	23	0
Lane Group Flow (vph)	67	706	51	228	1108	0	76	581	24	99	826	0
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	54.6	54.6	54.6	54.6	54.6		54.0	54.0	54.0	54.0	54.0	
Effective Green, g (s)	56.5	56.5	56.5	56.5	56.5		55.5	55.5	55.5	55.5	55.5	
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.47		0.46	0.46	0.46	0.46	0.46	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	105	1491	667	234	1460		177	1465	655	278	1415	
v/s Ratio Prot		0.22			0.36			0.18			c0.27	
v/s Ratio Perm	0.30		0.04	c0.46			0.20		0.02	0.16		
v/c Ratio	0.64	0.47	0.08	0.97	0.76		0.43	0.40	0.04	0.36	0.58	
Uniform Delay, d1	24.0	21.6	17.4	31.0	26.1		21.6	21.2	17.6	20.8	23.7	
Progression Factor	1.21	1.18	2.86	0.92	0.95		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	18.1	0.7	0.1	36.7	2.0		7.4	0.8	0.1	3.5	1.8	
Delay (s)	47.2	26.1	50.0	65.4	26.8		29.1	22.0	17.7	24.3	25.5	
Level of Service	D	C	D	E	C		C	C	B	C	C	
Approach Delay (s)		30.7			33.3			22.5			25.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3117		1583	3143		1583	1667	1417	1583	1588	
Flt Permitted	0.20	1.00		0.20	1.00		0.24	1.00	1.00	0.52	1.00	
Satd. Flow (perm)	327	3117		327	3143		393	1667	1417	874	1588	
Volume (vph)	51	739	86	76	1130	59	55	298	96	29	428	198
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	803	93	83	1228	64	60	324	104	32	465	215
RTOR Reduction (vph)	0	15	0	0	6	0	0	0	22	0	3	0
Lane Group Flow (vph)	55	881	0	83	1286	0	60	324	82	32	677	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	20.1	20.1		20.1	20.1		31.0	31.0	31.0	31.0	31.0	
Effective Green, g (s)	20.4	20.4		20.4	20.4		31.6	31.6	31.6	31.6	31.6	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.53	0.53	0.53	0.53	0.53	
Clearance Time (s)	4.3	4.3		4.3	4.3		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	111	1060		111	1069		207	878	746	460	836	
v/s Ratio Prot		0.28			c0.41			0.19			c0.43	
v/s Ratio Perm	0.17			0.25			0.15		0.06	0.04		
v/c Ratio	0.50	0.83		0.75	1.20		0.29	0.37	0.11	0.07	0.81	
Uniform Delay, d1	15.7	18.2		17.5	19.8		7.9	8.3	7.1	7.0	11.7	
Progression Factor	1.00	1.00		0.84	0.92		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.9	7.6		29.2	98.5		3.5	1.2	0.3	0.3	8.3	
Delay (s)	30.7	25.8		44.0	116.7		11.4	9.5	7.4	7.3	20.1	
Level of Service	C	C		D	F		B	A	A	A	C	
Approach Delay (s)		26.1			112.4			9.3			19.5	
Approach LOS		C			F			A			B	

Intersection Summary			
HCM Average Control Delay	56.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			0.99	
Flpb, ped/bikes	0.98	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.98			1.00			0.95	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1549	1662		1583	1626			1658			1551	
Flt Permitted	0.37	1.00		0.17	1.00			0.97			0.94	
Satd. Flow (perm)	600	1662		286	1626			1620			1467	
Volume (vph)	244	668	10	25	406	48	21	356	4	29	158	110
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	257	703	11	26	427	51	22	375	4	31	166	116
RTOR Reduction (vph)	0	1	0	0	7	0	0	1	0	0	35	0
Lane Group Flow (vph)	257	713	0	26	471	0	0	400	0	0	278	0
Confl. Peds. (#/hr)	28		25	25		28	21		28	28		21
Confl. Bikes (#/hr)			13			10			6			3
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	29.0	29.0		29.0	29.0			23.0			23.0	
Effective Green, g (s)	29.0	29.0		29.0	29.0			23.0			23.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.38			0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	290	803		138	786			621			562	
v/s Ratio Prot		c0.43			0.29							
v/s Ratio Perm	0.43			0.09				c0.25			0.19	
v/c Ratio	0.89	0.89		0.19	0.60			0.64			0.49	
Uniform Delay, d1	14.0	14.0		8.8	11.3			15.2			14.1	
Progression Factor	1.00	1.00		0.79	0.86			2.12			1.00	
Incremental Delay, d2	30.4	13.9		2.8	3.1			3.5			3.1	
Delay (s)	44.4	27.9		9.7	12.8			35.6			17.2	
Level of Service	D	C		A	B			D			B	
Approach Delay (s)		32.3			12.7			35.6			17.2	
Approach LOS		C			B			D			B	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.98		1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95
Satd. Flow (prot)		1583	4550	1417		1583	4550	1417	1583	1631		1583
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.53	1.00		0.20
Satd. Flow (perm)		1583	4550	1417		1583	4550	1417	890	1631		331
Volume (vph)	25	64	1761	16	2	53	1483	62	55	326	54	100
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	26	66	1815	16	2	55	1529	64	57	336	56	103
RTOR Reduction (vph)	0	0	0	6	0	0	0	33	0	5	0	0
Lane Group Flow (vph)	0	92	1815	10	0	57	1529	31	57	387	0	103
Turn Type	Prot	Prot		Perm	Prot	Prot		pm+ov	pm+pt			pm+pt
Protected Phases	1	1	6		5	5	2	7	3	8		7
Permitted Phases				6				2	8			4
Actuated Green, G (s)		12.1	50.7	50.7		8.1	46.7	57.0	38.9	31.9		45.5
Effective Green, g (s)		12.1	51.7	51.7		8.1	47.7	58.0	40.9	33.9		47.5
Actuated g/C Ratio		0.10	0.43	0.43		0.07	0.40	0.48	0.34	0.28		0.40
Clearance Time (s)		4.0	5.0	5.0		4.0	5.0	4.0	4.0	6.0		4.0
Vehicle Extension (s)		3.0	4.4	4.4		3.0	4.3	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		160	1960	610		107	1809	732	344	461		238
v/s Ratio Prot		c0.06	c0.40			0.04	0.34	0.00	0.01	c0.24		c0.04
v/s Ratio Perm				0.01				0.02	0.05			0.13
v/c Ratio		0.57	0.93	0.02		0.53	0.85	0.04	0.17	0.84		0.43
Uniform Delay, d1		51.5	32.3	19.6		54.1	32.8	16.4	27.1	40.5		26.0
Progression Factor		1.00	1.00	1.00		1.67	0.24	0.13	1.00	1.00		1.02
Incremental Delay, d2		4.9	9.0	0.0		2.1	2.2	0.0	0.2	12.6		1.2
Delay (s)		56.4	41.4	19.6		92.3	10.0	2.2	27.4	53.1		27.8
Level of Service		E	D	B		F	B	A	C	D		C
Approach Delay (s)			41.9				12.5			49.9		
Approach LOS			D				B			D		

Intersection Summary			
HCM Average Control Delay	30.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1700	1700
Total Lost time (s)	4.0	
Lane Util. Factor	1.00	
Frt	0.96	
Flt Protected	1.00	
Satd. Flow (prot)	1605	
Flt Permitted	1.00	
Satd. Flow (perm)	1605	
Volume (vph)	165	54
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	170	56
RTOR Reduction (vph)	10	0
Lane Group Flow (vph)	216	0
Turn Type		
Protected Phases	4	
Permitted Phases		
Actuated Green, G (s)	35.2	
Effective Green, g (s)	37.2	
Actuated g/C Ratio	0.31	
Clearance Time (s)	6.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	498	
v/s Ratio Prot	0.13	
v/s Ratio Perm		
v/c Ratio	0.43	
Uniform Delay, d1	33.0	
Progression Factor	1.02	
Incremental Delay, d2	0.6	
Delay (s)	34.3	
Level of Service	C	
Approach Delay (s)	32.3	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	0.99	1.00		1.00	1.00		0.99	1.00		0.99	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1568	1638		1583	1628		1568	3043		1572	3122	
Flt Permitted	0.41	1.00		0.08	1.00		0.22	1.00		0.18	1.00	
Satd. Flow (perm)	675	1638		140	1628		359	3043		295	3122	
Volume (vph)	143	799	78	74	382	50	107	657	153	38	686	49
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	832	81	77	398	52	111	684	159	40	715	51
RTOR Reduction (vph)	0	4	0	0	5	0	0	23	0	0	6	0
Lane Group Flow (vph)	149	909	0	77	445	0	111	820	0	40	760	0
Confl. Peds. (#/hr)	18		24	24		18	27		25	25		27
Confl. Bikes (#/hr)			5			42			5			2
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	49.0	49.0		49.0	49.0		31.1	31.1		31.1	31.1	
Effective Green, g (s)	50.0	50.0		50.0	50.0		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.36	0.36		0.36	0.36	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.9	4.9		4.9	4.9	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	910		78	904		128	1082		105	1110	
v/s Ratio Prot		c0.55			0.27			0.27			0.24	
v/s Ratio Perm	0.22			0.55			c0.31			0.14		
v/c Ratio	0.40	1.00		0.99	0.49		0.87	0.76		0.38	0.68	
Uniform Delay, d1	11.4	20.0		19.7	12.2		27.0	25.6		21.6	24.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	29.6		98.4	1.9		50.0	5.0		10.2	3.4	
Delay (s)	14.5	49.5		118.1	14.1		77.0	30.6		31.8	28.1	
Level of Service	B	D		F	B		E	C		C	C	
Approach Delay (s)		44.6			29.3			36.0			28.3	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM Average Control Delay	35.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	4550	1417		1583	4550	1417	1583	3167	1417	1583	3167
Flt Permitted	0.95	1.00	1.00		0.95	1.00	1.00	0.31	1.00	1.00	0.29	1.00
Satd. Flow (perm)	1583	4550	1417		1583	4550	1417	513	3167	1417	483	3167
Volume (vph)	113	1521	266	7	127	1309	105	136	588	170	10	428
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	116	1568	274	7	131	1349	108	140	606	175	10	441
RTOR Reduction (vph)	0	0	74	0	0	0	55	0	0	124	0	0
Lane Group Flow (vph)	116	1568	200	0	138	1349	53	140	606	51	10	441
Turn Type	Prot		pm+ov	Prot	Prot		Perm	pm+pt		Perm	pm+pt	
Protected Phases	1	6	3	5	5	2		3	8		7	4
Permitted Phases			6				2	8		8	4	
Actuated Green, G (s)	6.0	53.7	58.7		5.0	52.7	52.7	34.8	29.8	29.8	26.8	25.8
Effective Green, g (s)	6.0	55.0	61.0		5.0	54.0	54.0	38.0	32.0	32.0	30.0	28.0
Actuated g/C Ratio	0.05	0.50	0.55		0.05	0.49	0.49	0.35	0.29	0.29	0.27	0.25
Clearance Time (s)	4.0	5.3	5.0		4.0	5.3	5.3	5.0	6.2	6.2	5.0	6.2
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	4.2	4.2	3.0	3.6
Lane Grp Cap (vph)	86	2275	837		72	2234	696	236	921	412	152	806
v/s Ratio Prot	c0.07	c0.34	0.01		c0.09	0.30		c0.03	c0.19		0.00	0.14
v/s Ratio Perm			0.13				0.04	0.17		0.04	0.02	
v/c Ratio	1.35	0.69	0.24		1.92	0.60	0.08	0.59	0.66	0.12	0.07	0.55
Uniform Delay, d1	52.0	21.0	12.6		52.5	20.3	14.8	28.1	34.2	28.7	29.6	35.5
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	215.8	1.7	0.1		459.4	1.2	0.2	4.0	2.0	0.2	0.2	0.9
Delay (s)	267.8	22.7	12.7		511.9	21.5	15.0	32.0	36.2	28.9	29.8	36.4
Level of Service	F	C	B		F	C	B	C	D	C	C	D
Approach Delay (s)		35.8				63.5			34.2			35.1
Approach LOS		D				E			C			D

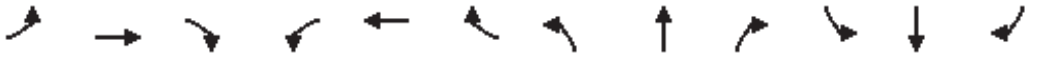
Intersection Summary			
HCM Average Control Delay	44.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1700
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1417
Flt Permitted	1.00
Satd. Flow (perm)	1417
Volume (vph)	58
Peak-hour factor, PHF	0.97
Adj. Flow (vph)	60
RTOR Reduction (vph)	41
Lane Group Flow (vph)	19
Turn Type	pm+ov
Protected Phases	1
Permitted Phases	4
Actuated Green, G (s)	31.8
Effective Green, g (s)	34.0
Actuated g/C Ratio	0.31
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	438
v/s Ratio Prot	0.00
v/s Ratio Perm	0.01
v/c Ratio	0.04
Uniform Delay, d1	26.6
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	26.7
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.86	1.00	0.86	0.81	0.86			
Frt	1.00	1.00			1.00	0.85	1.00	0.95	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.98	1.00			
Satd. Flow (prot)	3072	4550			5733	1417	1362	3787	1218			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.98	1.00			
Satd. Flow (perm)	3072	4550			5733	1417	1362	3787	1218			
Volume (vph)	521	1294	0	0	1214	309	826	309	662	0	0	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	532	1320	0	0	1239	315	843	315	676	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	140	0	45	45	0	0	0
Lane Group Flow (vph)	532	1320	0	0	1239	175	422	1020	302	0	0	0
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases						2			4			
Actuated Green, G (s)	36.0	74.0			34.0	34.0	35.2	35.2	35.2			
Effective Green, g (s)	36.0	75.0			35.0	35.0	37.0	37.0	37.0			
Actuated g/C Ratio	0.30	0.62			0.29	0.29	0.31	0.31	0.31			
Clearance Time (s)	4.0	5.0			5.0	5.0	5.8	5.8	5.8			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	922	2844			1672	413	420	1168	376			
v/s Ratio Prot	c0.17	0.29			c0.22		c0.31	0.27				
v/s Ratio Perm						0.12			0.25			
v/c Ratio	0.58	0.46			0.74	0.42	1.00	0.87	0.80			
Uniform Delay, d1	35.6	11.9			38.4	34.4	41.5	39.3	38.2			
Progression Factor	0.89	1.12			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.6	0.4			3.0	3.2	45.1	7.4	11.7			
Delay (s)	32.4	13.7			41.4	37.5	86.6	46.7	49.9			
Level of Service	C	B			D	D	F	D	D			
Approach Delay (s)		19.0			40.6			56.5			0.0	
Approach LOS		B			D			E			A	

Intersection Summary			
HCM Average Control Delay	38.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.81		0.97	0.91					0.91	0.86	0.91
Frt		0.96		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.97	1.00
Satd. Flow (prot)		6457		3072	4550					1441	2788	1289
Flt Permitted		1.00		0.95	1.00					0.95	0.97	1.00
Satd. Flow (perm)		6457		3072	4550					1441	2788	1289
Volume (vph)	0	1092	444	648	1386	0	0	0	0	737	283	223
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1114	453	661	1414	0	0	0	0	752	289	228
RTOR Reduction (vph)	0	60	0	0	0	0	0	0	0	0	0	39
Lane Group Flow (vph)	0	1507	0	661	1414	0	0	0	0	376	665	189
Turn Type				Prot						Split		Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		42.3		29.5	76.3					34.0	34.0	34.0
Effective Green, g (s)		43.0		30.0	77.0					35.0	35.0	35.0
Actuated g/C Ratio		0.36		0.25	0.64					0.29	0.29	0.29
Clearance Time (s)		4.7		4.5	4.7					5.0	5.0	5.0
Vehicle Extension (s)		3.0		4.0	3.0					4.0	4.0	4.0
Lane Grp Cap (vph)		2314		768	2920					420	813	376
v/s Ratio Prot		c0.23		c0.22	0.31					c0.26	0.24	
v/s Ratio Perm												0.15
v/c Ratio		0.65		0.86	0.48					0.90	0.90dl	0.50
Uniform Delay, d1		32.2		43.0	11.2					40.7	39.5	35.3
Progression Factor		1.00		0.79	0.54					1.00	1.00	1.00
Incremental Delay, d2		1.4		5.8	0.3					21.3	6.7	1.4
Delay (s)		33.7		39.6	6.3					62.1	46.3	36.7
Level of Service		C		D	A					E	D	D
Approach Delay (s)		33.7			16.9			0.0			49.2	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			0.99			0.99	
Flpb, ped/bikes	0.98	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.97			0.96			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1555	1653		1583	1598			1579			1619	
Flt Permitted	0.45	1.00		0.12	1.00			0.97			0.90	
Satd. Flow (perm)	729	1653		202	1598			1541			1473	
Volume (vph)	64	883	33	84	351	76	36	294	129	22	79	10
Peak-hour factor, PHF	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. Flow (vph)	64	883	33	84	351	76	36	294	129	22	79	10
RTOR Reduction (vph)	0	2	0	0	13	0	0	24	0	0	6	0
Lane Group Flow (vph)	64	914	0	84	414	0	0	435	0	0	105	0
Confl. Peds. (#/hr)	19		23	23		19	17		16	16		17
Confl. Bikes (#/hr)			9			39			2			10
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	33.0	33.0		33.0	33.0			19.0			19.0	
Effective Green, g (s)	33.0	33.0		33.0	33.0			19.0			19.0	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.32			0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	401	909		111	879			488			466	
v/s Ratio Prot		c0.55			0.26							
v/s Ratio Perm	0.09			0.42				c0.28			0.07	
v/c Ratio	0.16	1.01		0.76	0.47			0.89			0.22	
Uniform Delay, d1	6.7	13.5		10.4	8.2			19.5			15.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.9	31.1		37.6	1.8			18.2			0.2	
Delay (s)	7.5	44.6		48.0	10.0			37.7			15.3	
Level of Service	A	D		D	B			D			B	
Approach Delay (s)		42.2			16.3			37.7			15.3	
Approach LOS		D			B			D			B	

Intersection Summary			
HCM Average Control Delay	33.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4534		1583	4490		1583	1619		1583	1599	
Flt Permitted	0.16	1.00		0.23	1.00		0.54	1.00		0.50	1.00	
Satd. Flow (perm)	272	4534		379	4490		894	1619		832	1599	
Volume (vph)	42	978	23	27	1136	109	53	146	34	192	117	43
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	1063	25	29	1235	118	58	159	37	209	127	47
RTOR Reduction (vph)	0	2	0	0	8	0	0	8	0	0	12	0
Lane Group Flow (vph)	46	1086	0	29	1345	0	58	188	0	209	162	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	79.8	79.8		79.8	79.8		30.8	30.8		30.8	30.8	
Effective Green, g (s)	80.2	80.2		80.2	80.2		31.8	31.8		31.8	31.8	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.27	0.27		0.27	0.27	
Clearance Time (s)	4.4	4.4		4.4	4.4		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	182	3030		253	3001		237	429		220	424	
v/s Ratio Prot		0.24			c0.30			0.12			0.10	
v/s Ratio Perm	0.17			0.08			0.06			c0.25		
v/c Ratio	0.25	0.36		0.11	0.45		0.24	0.44		0.95	0.38	
Uniform Delay, d1	7.9	8.7		7.1	9.4		34.7	36.7		43.3	36.1	
Progression Factor	0.49	0.41		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.3	0.2		0.9	0.5		0.5	0.7		46.1	0.6	
Delay (s)	6.2	3.8		8.1	9.9		35.2	37.4		89.4	36.6	
Level of Service	A	A		A	A		D	D		F	D	
Approach Delay (s)		3.9			9.9			36.9			65.4	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	0.94	0.91		1.00	0.91			0.95	1.00		0.95	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	1.00
Satd. Flow (prot)	4465	4471		1583	4484			3156	1417		3148	1417
Flt Permitted	0.17	1.00		0.95	1.00			0.81	1.00		0.66	1.00
Satd. Flow (perm)	796	4471		1583	4484			2576	1417		2084	1417
Volume (vph)	80	1264	164	105	1225	131	51	744	133	79	603	77
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	1331	173	111	1289	138	54	783	140	83	635	81
RTOR Reduction (vph)	0	19	0	0	14	0	0	0	87	0	0	26
Lane Group Flow (vph)	84	1485	0	111	1413	0	0	837	53	0	718	55
Turn Type	Perm			Prot			Perm		Perm	Perm		Perm
Protected Phases		6		5	2			8			4	
Permitted Phases	6						8		8	4		4
Actuated Green, G (s)	36.0	36.0		8.0	48.0			33.5	33.5		33.5	33.5
Effective Green, g (s)	36.0	36.0		8.0	48.0			34.0	34.0		34.0	34.0
Actuated g/C Ratio	0.40	0.40		0.09	0.53			0.38	0.38		0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0			4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	318	1788		141	2391			973	535		787	535
v/s Ratio Prot		c0.33		c0.07	0.32							
v/s Ratio Perm	0.11							0.32	0.04		c0.34	0.04
v/c Ratio	0.26	0.83		0.79	0.59			0.86	0.10		0.91	0.10
Uniform Delay, d1	18.1	24.3		40.2	14.3			25.8	18.1		26.6	18.1
Progression Factor	1.44	1.36		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	1.9	4.3		24.5	1.1			9.8	0.4		16.7	0.4
Delay (s)	28.0	37.4		64.7	15.4			35.7	18.5		43.3	18.5
Level of Service	C	D		E	B			D	B		D	B
Approach Delay (s)		36.9			18.9			33.2			40.8	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		0.95			0.95			0.95			0.95	1.00
Frpb, ped/bikes		0.99			0.96			0.99			1.00	0.75
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.98			0.99			1.00	0.85
Flt Protected		1.00			1.00			1.00			1.00	1.00
Satd. Flow (prot)		3106			3001			3086			3167	1066
Flt Permitted		1.00			1.00			1.00			1.00	1.00
Satd. Flow (perm)		3106			3001			3086			3167	1066
Volume (vph)	0	973	75	0	998	130	0	1090	97	0	1159	102
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1014	78	0	1040	135	0	1135	101	0	1207	106
RTOR Reduction (vph)	0	7	0	0	10	0	0	7	0	0	0	11
Lane Group Flow (vph)	0	1085	0	0	1165	0	0	1229	0	0	1207	95
Confl. Peds. (#/hr)	136		73	73		136	120		104	120		104
Confl. Bikes (#/hr)			5			7			19			15
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)		40.2			40.2			40.2			40.2	40.2
Effective Green, g (s)		41.0			41.0			41.0			41.0	41.0
Actuated g/C Ratio		0.46			0.46			0.46			0.46	0.46
Clearance Time (s)		4.8			4.8			4.8			4.8	4.8
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1415			1367			1406			1443	486
v/s Ratio Prot		0.35			c0.39			c0.40			0.38	
v/s Ratio Perm												0.09
v/c Ratio		0.77			0.85			0.87			0.84	0.19
Uniform Delay, d1		20.5			21.8			22.2			21.6	14.6
Progression Factor		1.00			1.00			0.71			1.00	1.00
Incremental Delay, d2		4.0			6.9			0.8			5.9	0.9
Delay (s)		24.5			28.7			16.4			27.5	15.5
Level of Service		C			C			B			C	B
Approach Delay (s)		24.5			28.7			16.4			26.5	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.96		1.00	0.97		1.00	0.95	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1580	4421		1561	4297		1583	3020		1583	2953	
Flt Permitted	0.13	1.00		0.23	1.00		0.12	1.00		0.13	1.00	
Satd. Flow (perm)	210	4421		370	4297		208	3020		219	2953	
Volume (vph)	58	756	44	96	1207	131	86	1277	119	63	793	122
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	822	48	104	1312	142	93	1388	129	68	862	133
RTOR Reduction (vph)	0	6	0	0	13	0	0	8	0	0	13	0
Lane Group Flow (vph)	63	864	0	104	1441	0	93	1509	0	68	982	0
Confl. Peds. (#/hr)	663		371	371		663	453		618	618		453
Confl. Bikes (#/hr)			12			12			20			20
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	36.0	30.3		37.2	30.9		36.4	30.8		33.2	29.2	
Effective Green, g (s)	37.4	31.7		38.6	32.3		37.6	32.0		34.4	30.4	
Actuated g/C Ratio	0.42	0.35		0.43	0.36		0.42	0.36		0.38	0.34	
Clearance Time (s)	4.0	5.4		4.0	5.4		4.0	5.2		4.0	5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	174	1557		242	1542		172	1074		144	997	
v/s Ratio Prot	0.02	0.20		c0.03	c0.34		c0.03	c0.50		0.02	0.33	
v/s Ratio Perm	0.13			0.15			0.19			0.16		
v/c Ratio	0.36	0.55		0.43	0.93		0.54	1.41		0.47	0.98	
Uniform Delay, d1	18.4	23.5		16.3	27.8		19.3	29.0		42.9	29.6	
Progression Factor	1.10	0.73		0.47	0.74		0.81	1.01		1.68	1.53	
Incremental Delay, d2	0.9	1.0		1.1	10.5		2.9	187.1		1.3	17.3	
Delay (s)	21.2	18.1		8.8	31.1		18.5	216.4		73.6	62.5	
Level of Service	C	B		A	C		B	F		E	E	
Approach Delay (s)		18.3			29.6			205.0			63.2	
Approach LOS		B			C			F			E	

Intersection Summary			
HCM Average Control Delay	89.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3150		1583	3120		1583	3142		1583	3149	
Flt Permitted	0.32	1.00		0.40	1.00		0.10	1.00		0.12	1.00	
Satd. Flow (perm)	526	3150		665	3120		163	3142		202	3149	
Volume (vph)	51	481	18	95	576	62	42	1025	56	90	1136	45
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	54	512	19	101	613	66	45	1090	60	96	1209	48
RTOR Reduction (vph)	0	3	0	0	9	0	0	4	0	0	3	0
Lane Group Flow (vph)	54	528	0	101	670	0	45	1146	0	96	1254	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	40.4	40.4		40.4	40.4		40.3	40.3		40.3	40.3	
Effective Green, g (s)	41.0	41.0		41.0	41.0		41.0	41.0		41.0	41.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.6	4.6		4.6	4.6		4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	240	1435		303	1421		74	1431		92	1435	
v/s Ratio Prot		0.17			c0.21			0.36			0.40	
v/s Ratio Perm	0.10			0.15			0.28			c0.47		
v/c Ratio	0.23	0.37		0.33	0.47		0.61	0.80		1.04	0.87	
Uniform Delay, d1	14.9	16.0		15.7	17.0		18.5	21.0		24.5	22.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.45	0.44	
Incremental Delay, d2	2.2	0.7		2.9	1.1		32.0	4.8		92.0	5.7	
Delay (s)	17.0	16.8		18.7	18.1		50.4	25.8		103.0	15.5	
Level of Service	B	B		B	B		D	C		F	B	
Approach Delay (s)		16.8			18.2			26.7			21.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4536		1583	4488		1583	3167	1417	1583	3167	1417
Flt Permitted	0.11	1.00		0.11	1.00		0.12	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	184	4536		192	4488		200	3167	1417	206	3167	1417
Volume (vph)	124	1591	34	94	1191	119	120	901	59	166	1039	98
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	125	1607	34	95	1203	120	121	910	60	168	1049	99
RTOR Reduction (vph)	0	2	0	0	12	0	0	0	23	0	0	39
Lane Group Flow (vph)	125	1639	0	95	1311	0	121	910	37	168	1049	60
Turn Type	pm+pt			pm+pt			pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	1	6		5	2		3	8	5	7	4	1
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	43.1	35.3		40.1	33.8		40.2	32.4	38.7	40.6	32.6	40.4
Effective Green, g (s)	44.1	36.3		41.1	34.8		41.2	33.4	39.7	41.6	33.6	41.4
Actuated g/C Ratio	0.44	0.36		0.41	0.35		0.41	0.33	0.40	0.42	0.34	0.41
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0	4.0	4.0	5.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	190	1647		167	1562		190	1058	619	196	1064	643
v/s Ratio Prot	c0.05	c0.36		0.04	0.29		0.05	0.29	0.00	c0.07	c0.33	0.01
v/s Ratio Perm	0.24			0.20			0.21		0.02	0.29		0.04
v/c Ratio	0.66	1.00		0.57	0.84		0.64	0.86	0.06	0.86	0.99	0.09
Uniform Delay, d1	20.2	31.8		22.4	30.0		22.4	31.1	18.6	22.1	33.0	17.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.0	21.1		4.4	5.6		6.8	9.1	0.0	28.9	24.4	0.1
Delay (s)	28.1	52.8		26.8	35.6		29.3	40.3	18.7	51.0	57.4	17.9
Level of Service	C	D		C	D		C	D	B	D	E	B
Approach Delay (s)		51.1			35.0			37.8			53.6	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	45.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4503		1583	4514		1583	3141		1583	3133	
Flt Permitted	0.17	1.00		0.10	1.00		0.11	1.00		0.13	1.00	
Satd. Flow (perm)	280	4503		160	4514		185	3141		219	3133	
Volume (vph)	145	1434	106	112	1133	63	124	950	54	72	1251	95
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	148	1463	108	114	1156	64	127	969	55	73	1277	97
RTOR Reduction (vph)	0	7	0	0	7	0	0	5	0	0	6	0
Lane Group Flow (vph)	148	1564	0	114	1213	0	127	1019	0	73	1368	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	45.5	45.5		45.5	45.5		35.5	35.5		35.5	35.5	
Effective Green, g (s)	46.0	46.0		46.0	46.0		36.0	36.0		36.0	36.0	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	143	2302		82	2307		74	1256		88	1253	
v/s Ratio Prot		0.35			0.27			0.32			0.44	
v/s Ratio Perm	0.53			c0.71			c0.69			0.33		
v/c Ratio	1.03	0.68		1.39	0.53		1.72	0.81		0.83	1.09	
Uniform Delay, d1	22.0	16.5		22.0	14.7		27.0	24.0		24.2	27.0	
Progression Factor	1.28	1.24		1.37	1.44		1.00	1.00		1.00	1.00	
Incremental Delay, d2	80.7	1.5		206.1	0.4		372.7	5.8		57.1	54.3	
Delay (s)	109.0	21.9		236.3	21.6		399.7	29.8		81.3	81.3	
Level of Service	F	C		F	C		F	C		F	F	
Approach Delay (s)		29.4			39.9			70.6			81.3	
Approach LOS		C			D			E			F	

Intersection Summary			
HCM Average Control Delay	53.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	
Frt	1.00	1.00		1.00	1.00			1.00	0.85		0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.98	
Satd. Flow (prot)	1583	4537		1583	4531			1641	1417		1498	
Flt Permitted	0.19	1.00		0.12	1.00			0.91	1.00		0.88	
Satd. Flow (perm)	313	4537		202	4531			1517	1417		1336	
Volume (vph)	38	1511	30	70	1171	34	27	58	70	26	2	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	1642	33	76	1273	37	29	63	76	28	2	52
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	20	0	44	0
Lane Group Flow (vph)	41	1674	0	76	1308	0	0	92	56	0	38	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	69.0	69.0		69.0	69.0			12.5	12.5		12.5	
Effective Green, g (s)	69.0	69.0		69.0	69.0			13.0	13.0		13.0	
Actuated g/C Ratio	0.77	0.77		0.77	0.77			0.14	0.14		0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.5	4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	240	3478		155	3474			219	205		193	
v/s Ratio Prot		0.37			0.29							
v/s Ratio Perm	0.13			c0.38				c0.06	0.04		0.03	
v/c Ratio	0.17	0.48		0.49	0.38			0.42	0.27		0.19	
Uniform Delay, d1	2.8	3.9		3.9	3.4			35.1	34.3		33.9	
Progression Factor	1.00	1.00		1.68	1.08			1.00	1.00		1.00	
Incremental Delay, d2	1.5	0.5		7.9	0.2			1.3	0.7		0.5	
Delay (s)	4.4	4.4		14.5	4.0			36.4	35.0		34.4	
Level of Service	A	A		B	A			D	D		C	
Approach Delay (s)		4.4			4.5			35.8			34.4	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	0.91
Frpb, ped/bikes	0.95		1.00	1.00	0.99	0.96
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	0.97	0.85
Flt Protected	1.00		0.95	1.00	0.96	1.00
Satd. Flow (prot)	4126		1583	4550	2969	1238
Flt Permitted	1.00		0.09	1.00	0.96	1.00
Satd. Flow (perm)	4126		150	4550	2969	1238
Volume (vph)	1194	459	324	1024	546	509
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1218	468	331	1045	557	519
RTOR Reduction (vph)	76	0	0	0	31	5
Lane Group Flow (vph)	1610	0	331	1045	686	354
Confl. Peds. (#/hr)		184	184			22
Confl. Bikes (#/hr)		4				5
Turn Type			pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases			2			4
Actuated Green, G (s)	39.5		51.5	51.5	28.8	36.8
Effective Green, g (s)	40.5		52.5	52.5	29.5	37.5
Actuated g/C Ratio	0.45		0.58	0.58	0.33	0.42
Clearance Time (s)	5.0		4.0	5.0	4.7	4.0
Vehicle Extension (s)	3.0		2.0	3.0	2.0	2.0
Lane Grp Cap (vph)	1857		215	2654	973	571
v/s Ratio Prot	0.39		c0.14	0.23	c0.23	0.06
v/s Ratio Perm			c0.76			0.23
v/c Ratio	0.87		1.54	0.39	0.71	0.62
Uniform Delay, d1	22.3		23.5	10.1	26.4	20.7
Progression Factor	1.00		1.00	1.00	0.47	0.22
Incremental Delay, d2	5.8		264.7	0.4	1.6	1.2
Delay (s)	28.1		288.2	10.6	14.0	5.7
Level of Service	C		F	B	B	A
Approach Delay (s)	28.1			77.4	11.3	
Approach LOS	C			E	B	

Intersection Summary			
HCM Average Control Delay	40.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	2932		1583	1667	1417	1583	3105		1583	3162	
Flt Permitted	0.71	1.00		0.49	1.00	1.00	0.33	1.00		0.17	1.00	
Satd. Flow (perm)	1178	2932		818	1667	1417	550	3105		281	3162	
Volume (vph)	20	167	163	169	75	59	43	1029	155	20	723	7
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	170	166	172	77	60	44	1050	158	20	738	7
RTOR Reduction (vph)	0	0	0	0	0	42	0	13	0	0	1	0
Lane Group Flow (vph)	20	336	0	172	77	18	44	1195	0	20	744	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	26.4	26.4		26.4	26.4	26.4	54.3	54.3		54.3	54.3	
Effective Green, g (s)	27.0	27.0		27.0	27.0	27.0	55.0	55.0		55.0	55.0	
Actuated g/C Ratio	0.30	0.30		0.30	0.30	0.30	0.61	0.61		0.61	0.61	
Clearance Time (s)	4.6	4.6		4.6	4.6	4.6	4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	353	880		245	500	425	336	1898		172	1932	
v/s Ratio Prot		0.11			0.05			c0.38			0.24	
v/s Ratio Perm	0.02			c0.21		0.01	0.08			0.07		
v/c Ratio	0.06	0.38		0.70	0.15	0.04	0.13	0.63		0.12	0.39	
Uniform Delay, d1	22.4	24.9		27.9	23.1	22.3	7.4	11.1		7.3	8.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.86	1.61		0.25	0.28	
Incremental Delay, d2	0.3	1.3		15.5	0.7	0.2	0.1	0.1		0.1	0.1	
Delay (s)	22.7	26.2		43.4	23.8	22.5	6.5	17.9		1.9	2.5	
Level of Service	C	C		D	C	C	A	B		A	A	
Approach Delay (s)		26.0			34.5			17.5			2.5	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4525		1583	4497		1583	3119		1583	3167	1417
Flt Permitted	0.15	1.00		0.95	1.00		0.13	1.00		0.15	1.00	1.00
Satd. Flow (perm)	247	4525		1583	4497		221	3119		248	3167	1417
Volume (vph)	83	1668	63	121	1144	97	157	1053	118	82	947	72
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	87	1756	66	127	1204	102	165	1108	124	86	997	76
RTOR Reduction (vph)	0	4	0	0	10	0	0	9	0	0	0	53
Lane Group Flow (vph)	87	1818	0	127	1296	0	165	1223	0	86	997	23
Turn Type	pm+pt			Prot			pm+pt			pm+pt		Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2						4			8		8
Actuated Green, G (s)	31.4	26.1		10.6	30.5		39.1	29.1		32.7	25.9	25.9
Effective Green, g (s)	32.7	27.0		10.1	31.4		40.1	30.1		33.7	26.9	26.9
Actuated g/C Ratio	0.36	0.30		0.11	0.35		0.45	0.33		0.37	0.30	0.30
Clearance Time (s)	4.4	4.9		3.5	4.9		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	174	1358		178	1569		250	1043		194	947	424
v/s Ratio Prot	0.03	c0.40		c0.08	0.29		c0.07	c0.39		0.03	0.31	
v/s Ratio Perm	0.15						0.22			0.13		0.02
v/c Ratio	0.50	1.34		0.71	0.83		0.66	1.17		0.44	1.05	0.05
Uniform Delay, d1	20.4	31.5		38.6	26.8		19.5	29.9		22.5	31.6	22.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.93	0.85	0.78
Incremental Delay, d2	2.3	157.4		12.7	5.1		6.4	88.1		1.5	43.2	0.2
Delay (s)	22.7	188.9		51.3	31.9		25.8	118.1		22.5	69.9	17.7
Level of Service	C	F		D	C		C	F		C	E	B
Approach Delay (s)		181.4			33.6			107.2			63.0	
Approach LOS		F			C			F			E	

Intersection Summary			
HCM Average Control Delay	104.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	1.00
Satd. Flow (prot)	1583	4507		1583	4529			1623	1417		1641	1417
Flt Permitted	0.09	1.00		0.09	1.00			0.97	1.00		0.98	1.00
Satd. Flow (perm)	153	4507		147	4529			1623	1417		1641	1417
Volume (vph)	55	1536	103	6	1401	44	80	68	42	64	144	29
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	60	1688	113	7	1540	48	88	75	46	70	158	32
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	36	0	0	28
Lane Group Flow (vph)	60	1801	0	7	1585	0	0	163	10	0	228	4
Turn Type	Perm			Perm			Split		Perm	Split		Perm
Protected Phases		6			2		4	4		3	3	
Permitted Phases	6			2					4			3
Actuated Green, G (s)	43.6	43.6		43.6	43.6			19.0	19.0		10.5	10.5
Effective Green, g (s)	45.5	45.5		45.5	45.5			20.5	20.5		12.0	12.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.23	0.23		0.13	0.13
Clearance Time (s)	5.9	5.9		5.9	5.9			5.5	5.5		5.5	5.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	77	2279		74	2290			370	323		219	189
v/s Ratio Prot		c0.40			0.35			c0.10			c0.14	
v/s Ratio Perm	0.39			0.05					0.01			0.00
v/c Ratio	0.78	0.79		0.09	0.69			0.44	0.03		1.04	0.02
Uniform Delay, d1	18.2	18.3		11.6	16.9			29.8	27.0		39.0	33.9
Progression Factor	0.82	0.79		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	51.9	2.8		2.5	1.7			0.8	0.0		72.0	0.0
Delay (s)	66.8	17.3		14.1	18.7			30.7	27.1		111.0	34.0
Level of Service	E	B		B	B			C	C		F	C
Approach Delay (s)		18.9			18.6			29.9			101.5	
Approach LOS		B			B			C			F	

Intersection Summary			
HCM Average Control Delay	24.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	1.00
Satd. Flow (prot)	1583	4550		1583	4537			1595			1642	1417
Flt Permitted	0.24	1.00		0.16	1.00			0.99			0.99	1.00
Satd. Flow (perm)	404	4550		273	4537			1595			1642	1417
Volume (vph)	236	1296	0	22	980	19	6	21	10	9	20	174
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	246	1350	0	23	1021	20	6	22	10	9	21	181
RTOR Reduction (vph)	0	0	0	0	1	0	0	9	0	0	0	159
Lane Group Flow (vph)	246	1350	0	23	1040	0	0	29	0	0	30	22
Turn Type	Perm			Perm			Split			Split		Perm
Protected Phases		6			2		3	3		4	4	
Permitted Phases	6			2								4
Actuated Green, G (s)	56.8	56.8		56.8	56.8			7.2			10.1	10.1
Effective Green, g (s)	58.3	58.3		58.3	58.3			8.6			11.1	11.1
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.10			0.12	0.12
Clearance Time (s)	5.5	5.5		5.5	5.5			5.4			5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	262	2947		177	2939			152			203	175
v/s Ratio Prot		0.30			0.23			c0.02			c0.02	
v/s Ratio Perm	c0.61			0.08								0.02
v/c Ratio	0.94	0.46		0.13	0.35			0.19			0.15	0.13
Uniform Delay, d1	14.2	7.9		6.1	7.2			37.5			35.2	35.1
Progression Factor	1.00	1.00		1.32	1.31			1.00			1.00	1.00
Incremental Delay, d2	41.9	0.5		1.1	0.2			0.6			0.3	0.3
Delay (s)	56.1	8.5		9.2	9.7			38.1			35.6	35.5
Level of Service	E	A		A	A			D			D	D
Approach Delay (s)		15.8			9.7			38.1			35.5	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00			0.98			0.98	
Flpb, ped/bikes		1.00		0.98	1.00			1.00			1.00	
Frt		1.00		1.00	1.00			0.96			0.93	
Flt Protected		1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)		4265		1467	4262			1464			1413	
Flt Permitted		1.00		0.13	1.00			0.97			0.94	
Satd. Flow (perm)		4265		200	4262			1425			1339	
Volume (vph)	0	1446	17	34	1186	22	10	41	25	10	10	21
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1589	19	37	1303	24	11	45	27	11	11	23
RTOR Reduction (vph)	0	1	0	0	1	0	0	15	0	0	19	0
Lane Group Flow (vph)	0	1607	0	37	1326	0	0	68	0	0	26	0
Confl. Peds. (#/hr)	34		71	71		34	15		9	9		15
Confl. Bikes (#/hr)			8			12			4			2
Turn Type				Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		67.7		67.7	67.7			14.8			14.8	
Effective Green, g (s)		67.2		67.2	67.2			14.8			14.8	
Actuated g/C Ratio		0.75		0.75	0.75			0.16			0.16	
Clearance Time (s)		3.5		3.5	3.5			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		3185		149	3182			234			220	
v/s Ratio Prot		c0.38			0.31							
v/s Ratio Perm				0.19				c0.05			0.02	
v/c Ratio		0.50		0.25	0.42			0.29			0.12	
Uniform Delay, d1		4.6		3.5	4.2			33.0			32.0	
Progression Factor		0.30		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.2		3.9	0.4			0.7			0.2	
Delay (s)		1.6		7.5	4.6			33.7			32.3	
Level of Service		A		A	A			C			C	
Approach Delay (s)		1.6			4.7			33.7			32.3	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2948		1490	4223		1490	4210	
Flt Permitted	0.13	1.00	1.00	0.12	1.00		0.14	1.00		0.14	1.00	
Satd. Flow (perm)	202	2980	1333	194	2948		216	4223		216	4210	
Volume (vph)	104	1187	102	134	1057	83	131	1412	143	181	1529	194
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	107	1224	105	138	1090	86	135	1456	147	187	1576	200
RTOR Reduction (vph)	0	0	30	0	6	0	0	14	0	0	18	0
Lane Group Flow (vph)	107	1224	75	138	1170	0	135	1589	0	187	1758	0
Turn Type	pm+pt		pm+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)	35.6	30.0	37.0	38.4	31.4		35.0	28.0		35.0	28.0	
Effective Green, g (s)	36.6	31.0	38.0	39.4	32.4		36.0	29.0		36.0	29.0	
Actuated g/C Ratio	0.41	0.34	0.42	0.44	0.36		0.40	0.32		0.40	0.32	
Clearance Time (s)	4.0	5.0	4.0	4.0	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	4.8	3.0	3.0	4.6		3.0	4.3		3.0	5.5	
Lane Grp Cap (vph)	162	1026	622	186	1061		185	1361		185	1357	
v/s Ratio Prot	0.04	c0.41	0.01	c0.06	0.40		0.06	0.38		c0.08	c0.42	
v/s Ratio Perm	0.23		0.05	0.27			0.23			0.32		
v/c Ratio	0.66	1.19	0.12	0.74	1.10		0.73	1.17		1.01	1.30	
Uniform Delay, d1	20.9	29.5	15.8	21.0	28.8		42.1	30.5		24.0	30.5	
Progression Factor	0.82	0.75	0.57	1.00	1.00		1.66	1.46		1.70	1.43	
Incremental Delay, d2	4.0	90.9	0.0	14.7	60.1		8.5	80.8		58.2	137.1	
Delay (s)	21.0	113.1	9.1	35.7	88.9		78.5	125.3		99.0	180.6	
Level of Service	C	F	A	D	F		E	F		F	F	
Approach Delay (s)		98.6			83.3			121.7			172.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	124.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2927		1490	4228		1490	4237	
Flt Permitted	0.23	1.00	1.00	0.31	1.00		0.10	1.00		0.10	1.00	
Satd. Flow (perm)	363	2980	1333	486	2927		157	4228		157	4237	
Volume (vph)	67	562	74	133	851	116	106	1444	133	80	1501	114
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	68	568	75	134	860	117	107	1459	134	81	1516	115
RTOR Reduction (vph)	0	0	35	0	6	0	0	12	0	0	9	0
Lane Group Flow (vph)	68	568	40	134	971	0	107	1581	0	81	1622	0
Turn Type	Perm		Perm	pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8		8	4			6			2		
Actuated Green, G (s)	33.0	33.0	33.0	41.0	41.0		39.0	39.0		39.0	39.0	
Effective Green, g (s)	34.0	34.0	34.0	42.0	42.0		40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.38	0.38	0.38	0.47	0.47		0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	137	1126	504	271	1366		70	1879		70	1883	
v/s Ratio Prot		0.19		0.02	c0.33			0.37			0.38	
v/s Ratio Perm	0.19		0.03	0.21			c0.68			0.52		
v/c Ratio	0.50	0.50	0.08	0.49	0.71		1.53	0.84		1.16	0.86	
Uniform Delay, d1	21.4	21.5	18.0	16.1	19.1		25.0	22.2		25.0	22.5	
Progression Factor	1.34	1.38	2.18	1.00	1.00		1.00	1.00		0.41	0.35	
Incremental Delay, d2	1.2	0.1	0.0	1.4	3.2		297.3	4.8		84.9	0.5	
Delay (s)	29.9	29.9	39.1	17.5	22.3		322.3	27.0		95.2	8.5	
Level of Service	C	C	D	B	C		F	C		F	A	
Approach Delay (s)		30.9			21.7			45.5			12.6	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.91		1.00	0.91	
Frt		0.99			0.98		1.00	1.00		1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2948			2932		1490	4278		1490	4257	
Flt Permitted		1.00			1.00		0.17	1.00		0.17	1.00	
Satd. Flow (perm)		2948			2932		264	4278		264	4257	
Volume (vph)	0	997	77	0	760	93	71	1577	10	72	1569	64
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1017	79	0	776	95	72	1609	10	73	1601	65
RTOR Reduction (vph)	0	1	0	0	1	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	1095	0	0	870	0	72	1618	0	73	1659	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		27.3			27.3		23.1	23.1		23.1	23.1	
Effective Green, g (s)		28.2			28.2		23.8	23.8		23.8	23.8	
Actuated g/C Ratio		0.47			0.47		0.40	0.40		0.40	0.40	
Clearance Time (s)		4.9			4.9		4.7	4.7		4.7	4.7	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1386			1378		105	1697		105	1689	
v/s Ratio Prot		c0.37			0.30			0.38			c0.39	
v/s Ratio Perm							0.27			0.28		
v/c Ratio		0.79			0.63		0.69	0.95		0.70	0.98	
Uniform Delay, d1		13.4			12.0		15.0	17.6		15.1	17.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			1.0		30.7	13.3		31.8	18.1	
Delay (s)		16.6			12.9		45.7	30.8		46.8	36.0	
Level of Service		B			B		D	C		D	D	
Approach Delay (s)		16.6			12.9			31.5			36.5	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1486	4141		1488	4131		1489	4188		1490	4131	
Flt Permitted	0.15	1.00		0.14	1.00		0.13	1.00		0.95	1.00	
Satd. Flow (perm)	232	4141		221	4131		198	4188		1490	4131	
Volume (vph)	243	1186	130	203	903	111	82	1314	121	109	1317	150
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	248	1210	133	207	921	113	84	1341	123	111	1344	153
RTOR Reduction (vph)	0	15	0	0	17	0	0	12	0	0	15	0
Lane Group Flow (vph)	248	1328	0	207	1017	0	84	1452	0	111	1482	0
Confl. Peds. (#/hr)	145		153	153		145	164		89	89		164
Confl. Bikes (#/hr)			13			8			6			17
Turn Type	pm+pt			pm+pt			pm+pt			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8					
Actuated Green, G (s)	35.8	28.3		35.8	28.3		37.5	31.7		7.5	33.4	
Effective Green, g (s)	35.3	28.3		35.3	28.3		37.0	31.7		7.0	33.4	
Actuated g/C Ratio	0.39	0.31		0.39	0.31		0.41	0.35		0.08	0.37	
Clearance Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	189	1302		185	1299		157	1475		116	1533	
v/s Ratio Prot	c0.10	0.32		0.09	0.25		0.03	0.35		c0.07	c0.36	
v/s Ratio Perm	c0.41			0.35			0.19					
v/c Ratio	1.31	1.02		1.12	0.78		0.54	0.98		0.96	0.97	
Uniform Delay, d1	22.5	30.9		23.4	28.1		19.0	28.9		41.3	27.8	
Progression Factor	1.45	0.66		1.33	0.83		1.73	0.89		1.00	1.00	
Incremental Delay, d2	167.0	27.3		99.3	4.4		2.7	17.2		68.9	16.3	
Delay (s)	199.6	47.8		130.4	27.7		35.6	42.9		110.2	44.1	
Level of Service	F	D		F	C		D	D		F	D	
Approach Delay (s)		71.4			44.8			42.5			48.6	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM Average Control Delay	52.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.99	1.00	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1467			1516		1490	4261		1481	4211	
Flt Permitted		0.85			0.77		0.08	1.00		0.13	1.00	
Satd. Flow (perm)		1261			1185		133	4261		202	4211	
Volume (vph)	127	167	126	57	92	16	39	1358	28	19	1560	82
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	130	170	129	58	94	16	40	1386	29	19	1592	84
RTOR Reduction (vph)	0	4	0	0	5	0	0	2	0	0	6	0
Lane Group Flow (vph)	0	425	0	0	163	0	40	1413	0	19	1670	0
Confl. Peds. (#/hr)	10		12	12		10	57		25	25		57
Confl. Bikes (#/hr)			2						1			15
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		33.0			33.0		47.5	47.5		47.5	47.5	
Effective Green, g (s)		34.0			34.0		48.0	48.0		48.0	48.0	
Actuated g/C Ratio		0.38			0.38		0.53	0.53		0.53	0.53	
Clearance Time (s)		5.0			5.0		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		476			448		71	2273		108	2246	
v/s Ratio Prot								0.33			c0.40	
v/s Ratio Perm		c0.34			0.14		0.30			0.09		
v/c Ratio		0.89			0.36		0.56	0.62		0.18	0.74	
Uniform Delay, d1		26.3			20.2		14.0	14.7		10.8	16.2	
Progression Factor		1.00			1.00		1.00	1.00		0.55	0.48	
Incremental Delay, d2		18.6			0.5		28.6	1.3		0.9	0.6	
Delay (s)		44.9			20.7		42.6	16.0		6.9	8.5	
Level of Service		D			C		D	B		A	A	
Approach Delay (s)		44.9			20.7			16.7			8.4	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4260		1490	4205		1490	4268		1490	4231	
Flt Permitted	0.25	1.00		0.10	1.00		0.95	1.00		0.12	1.00	
Satd. Flow (perm)	389	4260		163	4205		1490	4268		181	4231	
Volume (vph)	134	1554	56	66	925	126	55	1423	32	140	1619	140
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	138	1602	58	68	954	130	57	1467	33	144	1669	144
RTOR Reduction (vph)	0	3	0	0	17	0	0	2	0	0	9	0
Lane Group Flow (vph)	138	1657	0	68	1067	0	57	1498	0	144	1804	0
Turn Type	Perm			pm+pt			Prot			pm+pt		
Protected Phases		8		7	4		5			1	6	
Permitted Phases	8			4				2		6		
Actuated Green, G (s)	33.0	33.0		44.0	44.0		8.0	29.4		45.0	33.2	
Effective Green, g (s)	34.4	34.4		45.4	45.4		8.0	30.8		46.4	34.6	
Actuated g/C Ratio	0.34	0.34		0.45	0.45		0.08	0.31		0.46	0.35	
Clearance Time (s)	5.4	5.4		4.0	5.4		4.0	5.4		4.0	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		4.0	3.0	
Lane Grp Cap (vph)	134	1465		167	1909		119	1315		238	1464	
v/s Ratio Prot		c0.39		0.03	c0.25		0.04			c0.07	c0.43	
v/s Ratio Perm	0.35			0.16				0.35		0.21		
v/c Ratio	1.03	1.13		0.41	0.56		0.48	1.14		0.61	1.23	
Uniform Delay, d1	32.8	32.8		21.5	20.0		44.0	34.6		21.0	32.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	85.9	68.1		1.6	1.2		3.0	72.3		5.0	110.6	
Delay (s)	118.7	100.9		23.2	21.2		47.0	106.9		25.9	143.3	
Level of Service	F	F		C	C		D	F		C	F	
Approach Delay (s)		102.2			21.3			104.7			134.7	
Approach LOS		F			C			F			F	

Intersection Summary			
HCM Average Control Delay	98.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91			0.91			1.00	1.00		1.00	
Frpb, ped/bikes	1.00	0.96			0.98			1.00	0.96		0.96	
Flpb, ped/bikes	0.96	1.00			1.00			0.98	1.00		0.99	
Frt	1.00	0.98			0.99			1.00	0.85		0.94	
Flt Protected	0.95	1.00			1.00			0.99	1.00		0.98	
Satd. Flow (prot)	1434	4036			4179			1515	1280		1389	
Flt Permitted	0.20	1.00			1.00			0.90	1.00		0.88	
Satd. Flow (perm)	303	4036			4179			1387	1280		1245	
Volume (vph)	207	1344	207	0	1023	65	63	164	158	13	8	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	230	1493	230	0	1137	72	70	182	176	14	9	17
RTOR Reduction (vph)	0	17	0	0	6	0	0	0	15	0	13	0
Lane Group Flow (vph)	230	1706	0	0	1203	0	0	252	161	0	27	0
Confl. Peds. (#/hr)	95		113	113		95	73		22	22		73
Confl. Bikes (#/hr)			13			15			3			3
Turn Type	Perm						Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6						8		8	4		
Actuated Green, G (s)	61.6	61.6			61.6			20.9	20.9		20.9	
Effective Green, g (s)	61.1	61.1			61.1			20.9	20.9		20.9	
Actuated g/C Ratio	0.68	0.68			0.68			0.23	0.23		0.23	
Clearance Time (s)	3.5	3.5			3.5			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	206	2740			2837			322	297		289	
v/s Ratio Prot		0.42			0.29							
v/s Ratio Perm	c0.76							c0.18	0.13		0.02	
v/c Ratio	1.12	0.62			0.42			0.78	0.54		0.09	
Uniform Delay, d1	14.4	8.0			6.5			32.4	30.4		27.1	
Progression Factor	1.48	1.45			0.30			1.00	1.00		1.00	
Incremental Delay, d2	93.3	0.9			0.3			11.7	2.0		0.1	
Delay (s)	114.8	12.6			2.3			44.1	32.4		27.3	
Level of Service	F	B			A			D	C		C	
Approach Delay (s)		24.6			2.3			39.3			27.3	
Approach LOS		C			A			D			C	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.86	0.86		1.00			1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.95			0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99			0.99	
Satd. Flow (prot)	1583	4533		1583	4300	1218		1577			1577	
Flt Permitted	0.21	1.00		0.12	1.00	1.00		0.90			0.81	
Satd. Flow (perm)	345	4533		199	4300	1218		1422			1284	
Volume (vph)	97	1372	35	60	982	126	36	152	105	71	171	119
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	107	1508	38	66	1079	138	40	167	115	78	188	131
RTOR Reduction (vph)	0	3	0	0	0	55	0	22	0	0	21	0
Lane Group Flow (vph)	107	1543	0	66	1079	83	0	300	0	0	376	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2		2	8			4		
Actuated Green, G (s)	54.3	54.3		54.3	54.3	54.3		27.7			27.7	
Effective Green, g (s)	54.3	54.3		54.3	54.3	54.3		27.7			27.7	
Actuated g/C Ratio	0.60	0.60		0.60	0.60	0.60		0.31			0.31	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	208	2735		120	2594	735		438			395	
v/s Ratio Prot		c0.34			0.25							
v/s Ratio Perm	0.31			0.33		0.07		0.21			c0.29	
v/c Ratio	0.51	0.56		0.55	0.42	0.11		0.68			0.95	
Uniform Delay, d1	10.3	10.7		10.6	9.5	7.6		27.3			30.5	
Progression Factor	2.06	2.22		1.08	0.86	0.94		1.00			1.00	
Incremental Delay, d2	7.6	0.7		15.7	0.5	0.3		4.4			33.0	
Delay (s)	28.7	24.6		27.1	8.6	7.4		31.7			63.5	
Level of Service	C	C		C	A	A		C			E	
Approach Delay (s)		24.9			9.4			31.7			63.5	
Approach LOS		C			A			C			E	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	1.00		1.00	1.00	0.94	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4545		1583	4550	1523	
Flt Permitted	1.00		0.12	1.00	0.97	
Satd. Flow (perm)	4545		199	4550	1523	
Volume (vph)	1468	10	48	1066	69	57
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1545	11	51	1122	73	60
RTOR Reduction (vph)	1	0	0	0	15	0
Lane Group Flow (vph)	1555	0	51	1122	118	0
Turn Type			Perm			
Protected Phases	6			2	8	
Permitted Phases			2			
Actuated Green, G (s)	54.8		54.8	54.8	26.0	
Effective Green, g (s)	55.3		55.3	55.3	26.7	
Actuated g/C Ratio	0.61		0.61	0.61	0.30	
Clearance Time (s)	4.5		4.5	4.5	4.7	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2793		122	2796	452	
v/s Ratio Prot	c0.34			0.25	c0.08	
v/s Ratio Perm			0.26			
v/c Ratio	0.56		0.42	0.40	0.26	
Uniform Delay, d1	10.2		9.0	8.9	24.1	
Progression Factor	1.00		1.75	1.84	1.00	
Incremental Delay, d2	0.8		9.1	0.4	0.3	
Delay (s)	11.0		24.9	16.7	24.4	
Level of Service	B		C	B	C	
Approach Delay (s)	11.0			17.1	24.4	
Approach LOS	B			B	C	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	3167	1417	1583	3167	1417	1583	3121	
Flt Permitted	0.22	1.00	1.00	0.10	1.00	1.00	0.16	1.00	1.00	0.13	1.00	
Satd. Flow (perm)	368	3167	1417	167	3167	1417	269	3167	1417	215	3121	
Volume (vph)	106	1235	117	174	1007	148	117	933	278	126	940	99
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	110	1286	122	181	1049	154	122	972	290	131	979	103
RTOR Reduction (vph)	0	0	32	0	0	6	0	0	123	0	9	0
Lane Group Flow (vph)	110	1286	90	181	1049	148	122	972	167	131	1073	0
Turn Type	Perm		Perm	pm+pt		pm+ov	Perm		Perm	pm+pt		
Protected Phases		6		5	2	7		8		7	4	
Permitted Phases	6		6	2		2	8		8	4		
Actuated Green, G (s)	35.0	35.0	35.0	44.0	44.0	49.7	27.1	27.1	27.1	36.0	36.0	
Effective Green, g (s)	36.0	36.0	36.0	45.0	45.0	51.0	27.0	27.0	27.0	37.0	37.0	
Actuated g/C Ratio	0.40	0.40	0.40	0.50	0.50	0.57	0.30	0.30	0.30	0.41	0.41	
Clearance Time (s)	5.0	5.0	5.0	3.2	5.0	4.3	3.9	3.9	3.9	4.3	5.0	
Vehicle Extension (s)	4.7	4.7	4.7	3.0	4.2	3.0	4.3	4.3	4.3	3.0	4.5	
Lane Grp Cap (vph)	147	1267	567	162	1584	866	81	950	425	180	1283	
v/s Ratio Prot		0.41		c0.06	0.33	0.01		0.31		0.05	c0.34	
v/s Ratio Perm	0.30		0.06	c0.50		0.09	c0.45		0.12	0.25		
v/c Ratio	0.75	1.01	0.16	1.12	0.66	0.17	1.51	1.02	0.39	0.73	0.84	
Uniform Delay, d1	23.1	27.0	17.3	20.2	16.8	9.4	31.5	31.5	25.0	21.0	23.8	
Progression Factor	1.00	1.00	1.00	2.22	0.35	0.40	0.57	0.56	0.18	1.11	1.13	
Incremental Delay, d2	29.0	29.1	0.6	61.0	0.2	0.0	254.5	25.7	1.2	11.4	5.5	
Delay (s)	52.1	56.1	17.9	106.0	6.1	3.7	272.4	43.4	5.8	34.7	32.4	
Level of Service	D	E	B	F	A	A	F	D	A	C	C	
Approach Delay (s)		52.7			18.9			55.7			32.7	
Approach LOS		D			B			E			C	

Intersection Summary			
HCM Average Control Delay	40.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3143		1583	3167	1417	1583	3118		1583	3130	
Flt Permitted	0.26	1.00		0.12	1.00	1.00	0.14	1.00		0.12	1.00	
Satd. Flow (perm)	431	3143		196	3167	1417	238	3118		208	3130	
Volume (vph)	199	1027	55	130	699	194	76	926	107	230	1056	88
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	203	1048	56	133	713	198	78	945	109	235	1078	90
RTOR Reduction (vph)	0	4	0	0	0	41	0	10	0	0	7	0
Lane Group Flow (vph)	203	1100	0	133	713	157	78	1044	0	235	1161	0
Turn Type	pm+pt			pm+pt		pm+ov	Perm			pm+pt		
Protected Phases	1	6		5	2	7		8		7	4	
Permitted Phases	6			2		2	8			4		
Actuated Green, G (s)	40.1	32.3		39.7	32.1	37.9	26.1	26.1		35.1	35.1	
Effective Green, g (s)	41.2	34.2		40.8	34.0	39.0	28.0	28.0		37.0	37.0	
Actuated g/C Ratio	0.46	0.38		0.45	0.38	0.43	0.31	0.31		0.41	0.41	
Clearance Time (s)	3.2	5.9		3.2	5.9	3.2	5.9	5.9		3.2	5.9	
Vehicle Extension (s)	3.0	4.6		3.0	4.7	3.0	4.7	4.7		3.0	4.7	
Lane Grp Cap (vph)	287	1194		194	1196	677	74	970		162	1287	
v/s Ratio Prot	c0.06	c0.35		0.05	0.23	0.01		0.33		c0.08	0.37	
v/s Ratio Perm	0.27			0.26		0.10	0.33			c0.52		
v/c Ratio	0.71	0.92		0.69	0.60	0.23	1.05	1.08		1.45	0.90	
Uniform Delay, d1	16.4	26.6		18.3	22.5	16.1	31.0	31.0		25.3	24.8	
Progression Factor	1.00	1.00		1.75	0.99	0.66	1.49	1.49		0.86	0.63	
Incremental Delay, d2	7.7	12.9		5.5	1.2	0.1	116.5	50.9		223.7	7.2	
Delay (s)	24.1	39.5		37.5	23.6	10.8	162.6	97.2		245.4	22.8	
Level of Service	C	D		D	C	B	F	F		F	C	
Approach Delay (s)		37.1			22.9			101.7			60.1	
Approach LOS		D			C			F			E	

Intersection Summary			
HCM Average Control Delay	55.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00		0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.75		1.00	0.65	1.00	0.99	
Flpb, ped/bikes	0.85	1.00		1.00	1.00	1.00		1.00	1.00	0.91	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1345	1642		3072	1667	1060		3167	918	1434	3101	
Flt Permitted	0.56	1.00		0.95	1.00	1.00		1.00	1.00	0.27	1.00	
Satd. Flow (perm)	788	1642		3072	1667	1060		3167	918	404	3101	
Volume (vph)	19	368	14	90	326	125	0	799	96	6	1060	44
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	20	383	15	94	340	130	0	832	100	6	1104	46
RTOR Reduction (vph)	0	2	0	0	0	34	0	0	0	0	3	0
Lane Group Flow (vph)	20	396	0	94	340	96	0	832	100	6	1147	0
Confl. Peds. (#/hr)	152		159	159		152	117		165	165		117
Confl. Bikes (#/hr)			5			9			7			6
Turn Type	Perm			Prot		Perm	Perm		pm+ov	Perm		
Protected Phases		8		7	4			6	7		2	
Permitted Phases	8					4	6		6	2		
Actuated Green, G (s)	20.2	20.2		10.0	34.2	34.2		46.2	56.2	46.2	46.2	
Effective Green, g (s)	21.0	21.0		10.0	35.0	35.0		47.0	57.0	47.0	47.0	
Actuated g/C Ratio	0.23	0.23		0.11	0.39	0.39		0.52	0.63	0.52	0.52	
Clearance Time (s)	4.8	4.8		4.0	4.8	4.8		4.8	4.0	4.8	4.8	
Vehicle Extension (s)	5.9	5.9		3.0	5.2	5.2		4.8	3.0	4.4	4.4	
Lane Grp Cap (vph)	184	383		341	648	412		1654	622	211	1619	
v/s Ratio Prot		c0.24		0.03	c0.20			0.26	0.02		c0.37	
v/s Ratio Perm	0.03					0.09			0.09	0.01		
v/c Ratio	0.11	1.04		0.28	0.52	0.23		0.50	0.16	0.03	0.71	
Uniform Delay, d1	27.1	34.5		36.7	21.1	18.5		13.9	6.7	10.4	16.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.33	0.32	0.38	0.77	
Incremental Delay, d2	1.2	55.4		0.4	3.0	1.3		0.1	0.0	0.1	1.2	
Delay (s)	28.3	89.9		37.1	24.1	19.8		4.7	2.2	4.1	13.7	
Level of Service	C	F		D	C	B		A	A	A	B	
Approach Delay (s)		86.9			25.3			4.4			13.7	
Approach LOS		F			C			A			B	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.97		1.00	0.98		1.00	0.94		1.00	1.00	0.81
Flpb, ped/bikes	0.99	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1572	4285		1583	4386		1583	2895		1583	3167	1151
Flt Permitted	0.20	1.00		0.14	1.00		0.13	1.00		0.95	1.00	1.00
Satd. Flow (perm)	324	4285		231	4386		218	2895		1583	3167	1151
Volume (vph)	226	1630	327	152	787	82	67	926	176	113	1351	203
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	238	1716	344	160	828	86	71	975	185	119	1422	214
RTOR Reduction (vph)	0	33	0	0	14	0	0	17	0	0	0	123
Lane Group Flow (vph)	238	2027	0	160	900	0	71	1143	0	119	1422	91
Confl. Peds. (#/hr)	152		159	159		152	166		214	214		166
Turn Type	pm+pt			pm+pt			pm+pt			Prot		Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8					4
Actuated Green, G (s)	34.6	27.8		34.6	27.8		34.2	29.6		9.4	34.4	34.4
Effective Green, g (s)	34.8	28.8		34.8	28.8		34.4	30.6		8.6	35.4	35.4
Actuated g/C Ratio	0.39	0.32		0.39	0.32		0.38	0.34		0.10	0.39	0.39
Clearance Time (s)	3.2	5.0		3.2	5.0		3.2	5.0		3.2	5.0	5.0
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	4.0
Lane Grp Cap (vph)	208	1371		179	1404		141	984		151	1246	453
v/s Ratio Prot	c0.08	c0.47		0.06	0.21		0.02	0.39		c0.08	c0.45	
v/s Ratio Perm	0.36			0.28			0.17					0.08
v/c Ratio	1.14	1.48		0.89	0.64		0.50	1.16		0.79	1.14	0.20
Uniform Delay, d1	24.3	30.6		24.0	26.2		23.0	29.7		39.8	27.3	18.0
Progression Factor	1.34	1.24		1.00	1.00		0.98	0.84		0.89	1.56	3.82
Incremental Delay, d2	103.1	218.7		38.6	2.3		2.7	83.5		21.2	72.7	0.9
Delay (s)	135.5	256.6		62.6	28.4		25.1	108.3		56.6	115.2	69.6
Level of Service	F	F		E	C		C	F		E	F	E
Approach Delay (s)		244.0			33.5			103.5			105.7	
Approach LOS		F			C			F			F	

Intersection Summary			
HCM Average Control Delay	143.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	113.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)			4.0	4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor			1.00	0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes			0.98	1.00	0.98	0.97		0.99		1.00	1.00	
Flpb, ped/bikes			1.00	1.00	1.00	1.00		1.00		0.99	1.00	
Frt			0.86	1.00	0.92	0.85		0.98		1.00	1.00	
Flt Protected			1.00	0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)			1412	1501	1343	1300		3085		1561	3167	
Flt Permitted			1.00	0.95	0.98	1.00		1.00		0.26	1.00	
Satd. Flow (perm)			1412	1501	1343	1300		3085		425	3167	
Volume (vph)	0	0	84	125	0	140	0	833	102	172	982	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	0	86	128	0	143	0	850	104	176	1002	0
RTOR Reduction (vph)	0	0	81	0	42	80	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	5	80	55	14	0	946	0	176	1002	0
Confl. Peds. (#/hr)	10		1	1		10	18		29	29		18
Confl. Bikes (#/hr)			1			2			3			3
Turn Type			custom	Perm		Perm				Perm		
Protected Phases					3			2			2	
Permitted Phases			4	3		3				2		
Actuated Green, G (s)			4.7	12.7	12.7	12.7		58.2		58.2	58.2	
Effective Green, g (s)			5.6	13.6	13.6	13.6		58.8		58.8	58.8	
Actuated g/C Ratio			0.06	0.15	0.15	0.15		0.65		0.65	0.65	
Clearance Time (s)			4.9	4.9	4.9	4.9		4.6		4.6	4.6	
Vehicle Extension (s)			3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)			88	227	203	196		2016		278	2069	
v/s Ratio Prot								0.31			0.32	
v/s Ratio Perm			c0.00	c0.05	0.04	0.01				c0.41		
v/c Ratio			0.06	0.35	0.27	0.07		0.47		0.63	0.48	
Uniform Delay, d1			39.7	34.3	33.8	32.8		7.8		9.2	7.9	
Progression Factor			1.00	1.00	1.00	1.00		1.00		0.93	0.72	
Incremental Delay, d2			0.3	0.9	0.7	0.2		0.8		1.0	0.1	
Delay (s)			40.0	35.2	34.6	32.9		8.6		9.6	5.8	
Level of Service			D	D	C	C		A		A	A	
Approach Delay (s)		40.0			34.2			8.6			6.3	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		0.91			0.91		1.00	0.86			0.86	
Frt		0.98			0.97		1.00	1.00			1.00	
Flt Protected		1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)		4448			4413		1583	5733			5733	
Flt Permitted		1.00			1.00		0.17	1.00			1.00	
Satd. Flow (perm)		4448			4413		284	5733			5733	
Volume (vph)	0	1457	256	0	1001	252	123	578	0	0	1053	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1487	261	0	1021	257	126	590	0	0	1074	0
RTOR Reduction (vph)	0	25	0	0	44	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1723	0	0	1234	0	126	590	0	0	1074	0
Turn Type							Perm					
Protected Phases		6			6			2			2	
Permitted Phases							2					
Actuated Green, G (s)		22.1			22.1		24.5	24.5			24.5	
Effective Green, g (s)		23.0			23.0		23.5	23.5			23.5	
Actuated g/C Ratio		0.23			0.23		0.24	0.24			0.24	
Clearance Time (s)		4.9			4.9		3.0	3.0			3.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1023			1015		67	1347			1347	
v/s Ratio Prot		c0.39			0.28			0.10			0.19	
v/s Ratio Perm							c0.44					
v/c Ratio		1.68			1.22		1.88	0.44			0.80	
Uniform Delay, d1		38.5			38.5		38.2	32.6			36.0	
Progression Factor		0.71			1.00		1.00	1.00			0.45	
Incremental Delay, d2		308.5			106.3		447.1	1.0			2.9	
Delay (s)		335.6			144.8		485.4	33.7			19.0	
Level of Service		F			F		F	C			B	
Approach Delay (s)		335.6			144.8			113.1			19.0	
Approach LOS		F			F			F			B	

Intersection Summary			
HCM Average Control Delay	181.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	53.5
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86	1.00		0.91	1.00		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		1.00	0.85		1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00		1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1583	5733	1417		4550	1417		3165		1583	3149	
Flt Permitted	0.23	1.00	1.00		1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)	385	5733	1417		4550	1417		3165		1583	3149	
Volume (vph)	21	1010	34	0	694	119	0	799	3	92	1024	39
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	21	1031	35	0	708	121	0	815	3	94	1045	40
RTOR Reduction (vph)	0	0	27	0	0	93	0	0	0	0	3	0
Lane Group Flow (vph)	21	1031	8	0	708	28	0	818	0	94	1082	0
Turn Type	Perm		Perm			Perm				Prot		
Protected Phases		2			2			8		7	4	
Permitted Phases	2		2			2						
Actuated Green, G (s)	24.5	24.5	24.5		24.5	24.5		31.0		5.0	31.0	
Effective Green, g (s)	23.5	23.5	23.5		23.5	23.5		32.5		5.0	32.5	
Actuated g/C Ratio	0.24	0.24	0.24		0.24	0.24		0.32		0.05	0.32	
Clearance Time (s)	3.0	3.0	3.0		3.0	3.0		5.5		4.0	5.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		5.0		3.0	4.0	
Lane Grp Cap (vph)	90	1347	333		1069	333		1029		79	1023	
v/s Ratio Prot		c0.18			0.16			0.26		c0.06	c0.34	
v/s Ratio Perm	0.05		0.01			0.02						
v/c Ratio	0.23	0.77	0.02		0.66	0.09		0.79		1.19	1.06	
Uniform Delay, d1	31.0	35.7	29.4		34.7	29.9		30.7		47.5	33.8	
Progression Factor	1.00	1.00	1.00		0.60	0.34		0.28		1.00	1.00	
Incremental Delay, d2	6.0	4.2	0.1		2.4	0.4		3.4		161.1	44.8	
Delay (s)	36.9	39.9	29.6		23.2	10.4		12.1		208.6	78.5	
Level of Service	D	D	C		C	B		B		F	E	
Approach Delay (s)		39.5			21.4			12.1			88.9	
Approach LOS		D			C			B			F	

Intersection Summary			
HCM Average Control Delay	44.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	39.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95			0.95	
Frt	1.00	1.00		1.00	1.00		1.00	1.00			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1583	4539		1583	4544		1583	3152			3075	
Flt Permitted	0.17	1.00		0.17	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	290	4539		290	4544		1583	3152			3075	
Volume (vph)	129	1720	28	61	1045	9	33	629	20	0	860	206
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	132	1755	29	62	1066	9	34	642	20	0	878	210
RTOR Reduction (vph)	0	2	0	0	1	0	0	2	0	0	21	0
Lane Group Flow (vph)	132	1782	0	62	1074	0	34	660	0	0	1067	0
Turn Type	Perm			Perm			Prot					
Protected Phases		6			6		3	8			4	
Permitted Phases	6			6								
Actuated Green, G (s)	22.1	22.1		22.1	22.1		5.0	31.0			31.0	
Effective Green, g (s)	23.0	23.0		23.0	23.0		5.0	32.5			32.5	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.05	0.32			0.32	
Clearance Time (s)	4.9	4.9		4.9	4.9		4.0	5.5			5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0			4.0	
Lane Grp Cap (vph)	67	1044		67	1045		79	1024			999	
v/s Ratio Prot		0.39			0.24		c0.02	0.21			c0.35	
v/s Ratio Perm	c0.46			0.21								
v/c Ratio	1.97	1.71		0.93	1.03		0.43	0.64			1.07	
Uniform Delay, d1	38.5	38.5		37.7	38.5		46.1	28.8			33.8	
Progression Factor	1.00	1.00		0.69	0.67		1.00	1.00			0.24	
Incremental Delay, d2	485.6	322.4		19.1	16.8		3.7	3.1			33.0	
Delay (s)	524.1	360.9		44.9	42.8		49.9	31.9			41.2	
Level of Service	F	F		D	D		D	C			D	
Approach Delay (s)		372.2			42.9			32.8			41.2	
Approach LOS		F			D			C			D	

Intersection Summary			
HCM Average Control Delay	171.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	39.5
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	3138		1583	3149		1583	3167	1417	1583	3167	1417
Flt Permitted	0.25	1.00		0.13	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	418	3138		222	3149		1583	3167	1417	1583	3167	1417
Volume (vph)	54	1110	70	67	628	24	97	635	174	79	837	80
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	56	1156	73	70	654	25	101	661	181	82	872	83
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	64	0	0	46
Lane Group Flow (vph)	56	1224	0	70	676	0	101	661	117	82	872	37
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		6			2		3	8		7	4	
Permitted Phases	6			2					8			4
Actuated Green, G (s)	29.0	29.0		29.0	29.0		7.8	39.3	39.3	7.7	39.2	39.2
Effective Green, g (s)	30.0	30.0		30.0	30.0		7.8	40.3	40.3	7.7	40.2	40.2
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.09	0.45	0.45	0.09	0.45	0.45
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	139	1046		74	1050		137	1418	635	135	1415	633
v/s Ratio Prot		c0.39			0.21		c0.06	0.21		0.05	c0.28	
v/s Ratio Perm	0.13			0.32					0.08			0.03
v/c Ratio	0.40	1.17		0.95	0.64		0.74	0.47	0.19	0.61	0.62	0.06
Uniform Delay, d1	23.1	30.0		29.2	25.5		40.1	17.3	15.0	39.7	19.0	14.1
Progression Factor	0.91	0.83		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	77.5		90.3	3.0		18.5	1.1	0.6	7.5	2.0	0.2
Delay (s)	21.9	102.4		119.5	28.5		58.6	18.4	15.6	47.2	21.0	14.3
Level of Service	C	F		F	C		E	B	B	D	C	B
Approach Delay (s)		98.9			37.0			22.2			22.6	
Approach LOS		F			D			C			C	

Intersection Summary			
HCM Average Control Delay	49.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			0.95			0.95	
Frt	1.00	0.99		1.00	0.98			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1583	4496		1583	4475			3118			3089	
Flt Permitted	0.23	1.00		0.09	1.00			1.00			0.72	
Satd. Flow (perm)	382	4496		151	4475			3118			2240	
Volume (vph)	163	1505	128	168	902	112	0	632	72	69	538	92
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	166	1536	131	171	920	114	0	645	73	70	549	94
RTOR Reduction (vph)	0	9	0	0	15	0	0	10	0	0	15	0
Lane Group Flow (vph)	166	1658	0	171	1019	0	0	708	0	0	698	0
Turn Type	Perm			Perm						Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2						4		
Actuated Green, G (s)	48.1	48.1		48.1	48.1			30.2			30.2	
Effective Green, g (s)	49.8	49.8		49.8	49.8			32.2			32.2	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.36			0.36	
Clearance Time (s)	5.7	5.7		5.7	5.7			6.0			6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	211	2488		84	2476			1116			801	
v/s Ratio Prot		0.37			0.23			0.23				
v/s Ratio Perm	0.43			c1.14							c0.31	
v/c Ratio	0.79	0.67		2.04	0.41			0.63			0.87	
Uniform Delay, d1	15.9	14.2		20.1	11.6			24.0			27.0	
Progression Factor	0.53	0.57		0.76	0.38			1.00			1.00	
Incremental Delay, d2	14.1	0.7		499.9	0.4			1.2			10.3	
Delay (s)	22.5	8.8		515.1	4.8			25.2			37.2	
Level of Service	C	A		F	A			C			D	
Approach Delay (s)		10.0			77.2			25.2			37.2	
Approach LOS		B			E			C			D	

Intersection Summary			
HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4516		1583	4520		1583	4349		1583	4550	1417
Flt Permitted	0.15	1.00		0.11	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	249	4516		175	4520		1583	4349		1583	4550	1417
Volume (vph)	214	1549	82	181	1096	50	10	626	261	157	1599	244
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	223	1614	85	189	1142	52	10	652	272	164	1666	254
RTOR Reduction (vph)	0	7	0	0	6	0	0	8	0	0	0	79
Lane Group Flow (vph)	223	1692	0	189	1188	0	10	916	0	164	1666	175
Turn Type	Perm			Perm			Prot			Prot		Perm
Protected Phases		4			8		5			1	6	
Permitted Phases	4			8				2				6
Actuated Green, G (s)	36.0	36.0		36.0	36.0		1.0	33.0		6.0	37.0	37.0
Effective Green, g (s)	38.0	38.0		38.0	38.0		2.0	34.0		6.0	38.0	38.0
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.02	0.38		0.07	0.42	0.42
Clearance Time (s)	6.0	6.0		6.0	6.0		5.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		2.0	4.0		2.0	4.0	4.0
Lane Grp Cap (vph)	105	1907		74	1908		35	1643		106	1921	598
v/s Ratio Prot		0.37			0.26		0.01			c0.10	c0.37	
v/s Ratio Perm	0.90			c1.08				0.21				0.12
v/c Ratio	2.12	0.89		2.55	0.62		0.29	0.56		1.55	0.87	0.29
Uniform Delay, d1	26.0	24.0		26.0	20.4		43.3	22.1		42.0	23.7	17.1
Progression Factor	1.00	1.00		0.77	0.61		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	536.3	6.6		735.8	1.5		1.6	1.4		287.4	5.6	1.2
Delay (s)	562.3	30.6		755.9	13.8		44.9	23.4		329.4	29.3	18.4
Level of Service	F	C		F	B		D	C		F	C	B
Approach Delay (s)		92.3			115.3			23.7			51.6	
Approach LOS		F			F			C			D	

Intersection Summary			
HCM Average Control Delay	73.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99			0.99			1.00	0.92
Flpb, ped/bikes	0.98	1.00		0.99	1.00			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	1.00
Satd. Flow (prot)	1548	4537		1566	4503			1584			1645	1306
Flt Permitted	0.19	1.00		0.11	1.00			0.96			0.92	1.00
Satd. Flow (perm)	305	4537		189	4503			1532			1523	1306
Volume (vph)	80	1529	14	25	1148	39	25	182	50	23	116	196
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	85	1627	15	27	1221	41	27	194	53	24	123	209
RTOR Reduction (vph)	0	1	0	0	4	0	0	8	0	0	0	59
Lane Group Flow (vph)	85	1641	0	27	1258	0	0	266	0	0	147	150
Confl. Peds. (#/hr)	67		64	64		67	46		45	45		46
Confl. Bikes (#/hr)			7			5			5			6
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	69.0	69.0		69.0	69.0			25.0			25.0	25.0
Effective Green, g (s)	68.0	68.0		68.0	68.0			24.0			24.0	24.0
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.24			0.24	0.24
Clearance Time (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	207	3085		129	3062			368			366	313
v/s Ratio Prot		c0.36			0.28							
v/s Ratio Perm	0.28			0.14				c0.17			0.10	0.12
v/c Ratio	0.41	0.53		0.21	0.41			0.72			0.40	0.48
Uniform Delay, d1	7.1	8.0		6.0	7.1			34.9			32.0	32.6
Progression Factor	0.35	0.26		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.5	0.1		3.7	0.4			11.6			3.3	5.2
Delay (s)	3.0	2.1		9.6	7.5			46.5			35.2	37.9
Level of Service	A	A		A	A			D			D	D
Approach Delay (s)		2.2			7.6			46.5			36.8	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91		0.97	0.91	
Frpb, ped/bikes	1.00	1.00	0.75	1.00	0.93		1.00	0.95		1.00	0.97	
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1572	3167	1060	1583	2826		3072	4276		3072	4388	
Flt Permitted	0.16	1.00	1.00	0.11	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	268	3167	1060	185	2826		3072	4276		3072	4388	
Volume (vph)	202	884	120	176	540	169	61	1385	151	137	1118	86
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	215	940	128	187	574	180	65	1473	161	146	1189	91
RTOR Reduction (vph)	0	0	85	0	25	0	0	11	0	0	7	0
Lane Group Flow (vph)	215	940	43	187	729	0	65	1623	0	146	1273	0
Confl. Peds. (#/hr)	211		160	160		211	310		128	128		310
Confl. Bikes (#/hr)			10			8			9			7
Turn Type	pm+pt		Perm	pm+pt			Prot			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2								
Actuated Green, G (s)	49.7	35.3	35.3	48.3	34.6		9.6	44.2		9.4	44.0	
Effective Green, g (s)	50.1	36.7	36.7	48.7	36.0		9.6	45.2		9.4	45.0	
Actuated g/C Ratio	0.42	0.31	0.31	0.41	0.30		0.08	0.38		0.08	0.38	
Clearance Time (s)	3.0	5.4	5.4	3.0	5.4		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	258	969	324	223	848		246	1611		241	1646	
v/s Ratio Prot	c0.09	c0.30		0.09	0.26		0.02	c0.38		0.05	c0.29	
v/s Ratio Perm	0.26		0.04	0.25								
v/c Ratio	0.83	0.97	0.13	0.84	0.86		0.26	1.01		0.61	0.77	
Uniform Delay, d1	26.3	41.1	30.1	28.3	39.6		51.9	37.4		53.5	33.0	
Progression Factor	1.60	0.96	1.44	1.00	1.00		0.86	0.79		1.08	0.50	
Incremental Delay, d2	15.1	17.7	0.1	23.1	11.0		0.5	22.3		2.7	2.3	
Delay (s)	57.1	57.0	43.4	51.4	50.7		45.2	52.0		60.4	18.8	
Level of Service	E	E	D	D	D		D	D		E	B	
Approach Delay (s)		55.7			50.8			51.7			23.0	
Approach LOS		E			D			D			C	

Intersection Summary			
HCM Average Control Delay	44.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00		0.91		1.00	0.86	0.86	1.00		1.00	0.97	
Frt	1.00		1.00		1.00	0.97	0.85	1.00		0.85	1.00	
Flt Protected	0.95		1.00		0.95	1.00	1.00	0.95		1.00	0.95	
Satd. Flow (prot)	1583		4535		1583	4153	1218	1583		1417	3072	
Flt Permitted	0.95		1.00		0.95	1.00	1.00	0.95		1.00	0.95	
Satd. Flow (perm)	1583		4535		1583	4153	1218	1583		1417	3072	
Volume (vph)	17	0	931	21	14	687	600	26	0	46	855	0
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	18	0	990	22	15	731	638	28	0	49	910	0
RTOR Reduction (vph)	0	0	2	0	0	40	257	0	0	47	0	0
Lane Group Flow (vph)	18	0	1010	0	15	906	166	28	0	2	910	0
Turn Type	Prot				Prot		Perm	Prot		custom	custom	
Protected Phases	5		2		1	6		7				
Permitted Phases							6			7	8	
Actuated Green, G (s)	2.0		46.1		2.0	45.2	45.2	4.0		4.0	46.1	
Effective Green, g (s)	3.9		47.1		3.9	47.1	47.1	5.0		5.0	48.0	
Actuated g/C Ratio	0.03		0.39		0.03	0.39	0.39	0.04		0.04	0.40	
Clearance Time (s)	5.9		5.0		5.9	5.9	5.9	5.0		5.0	5.9	
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	51		1780		51	1630	478	66		59	1229	
v/s Ratio Prot	0.01		c0.22		0.01	c0.22		c0.02				
v/s Ratio Perm							0.14			0.00	c0.30	
v/c Ratio	0.35		0.57		0.29	0.56	0.35	0.42		0.03	0.74	
Uniform Delay, d1	56.8		28.5		56.7	28.3	25.6	56.1		55.2	30.7	
Progression Factor	1.22		1.39		1.04	1.74	8.32	1.00		1.00	1.19	
Incremental Delay, d2	1.8		0.6		2.5	1.1	1.6	4.3		0.2	2.8	
Delay (s)	71.3		40.3		61.7	50.5	214.8	60.4		55.4	39.2	
Level of Service	E		D		E	D	F	E		E	D	
Approach Delay (s)			40.8			100.8			57.2			40.8
Approach LOS			D			F			E			D

Intersection Summary			
HCM Average Control Delay	65.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1700
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1417
Flt Permitted	1.00
Satd. Flow (perm)	1417
Volume (vph)	71
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	76
RTOR Reduction (vph)	46
Lane Group Flow (vph)	30
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	46.1
Effective Green, g (s)	48.0
Actuated g/C Ratio	0.40
Clearance Time (s)	5.9
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	567
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.05
Uniform Delay, d1	22.1
Progression Factor	2.71
Incremental Delay, d2	0.1
Delay (s)	60.0
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor		0.86	1.00		0.86	1.00	1.00	0.91			0.91	
Frt		1.00	0.85		1.00	0.85	1.00	1.00			0.98	
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)		5733	1417		5733	1417	1583	4549			4474	
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)		5733	1417		5733	1417	1583	4549			4474	
Volume (vph)	0	1425	337	0	934	389	186	1333	2	0	1410	177
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1469	347	0	963	401	192	1374	2	0	1454	182
RTOR Reduction (vph)	0	0	8	0	0	41	0	0	0	0	13	0
Lane Group Flow (vph)	0	1469	339	0	963	360	192	1376	0	0	1623	0
Turn Type			pm+ov			Perm	Prot					
Protected Phases		8	1		4		1	6			2	
Permitted Phases		8	8			4						
Actuated Green, G (s)		34.2	49.1		34.2	34.2	14.9	73.8			53.4	
Effective Green, g (s)		36.2	52.6		36.2	36.2	16.4	75.8			55.4	
Actuated g/C Ratio		0.30	0.44		0.30	0.30	0.14	0.63			0.46	
Clearance Time (s)		6.0	5.5		6.0	6.0	5.5	6.0			6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)		1729	668		1729	427	216	2873			2065	
v/s Ratio Prot		c0.26	0.07		0.17		c0.12	0.30			c0.36	
v/s Ratio Perm			0.17			0.25						
v/c Ratio		0.85	0.51		0.56	0.84	0.89	0.48			0.79	
Uniform Delay, d1		39.3	24.3		35.2	39.2	50.9	11.7			27.3	
Progression Factor		1.19	1.01		1.00	1.00	1.12	0.77			0.31	
Incremental Delay, d2		4.3	0.5		1.3	18.0	28.9	0.5			2.3	
Delay (s)		51.1	25.2		36.5	57.2	86.1	9.4			10.7	
Level of Service		D	C		D	E	F	A			B	
Approach Delay (s)		46.1			42.6			18.8			10.7	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM Average Control Delay	29.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frt		0.97			0.97		1.00	0.99		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1592			1599		1583	4523		1583	4499	
Flt Permitted		0.84			0.93		0.13	1.00		0.16	1.00	
Satd. Flow (perm)		1361			1497		219	4523		261	4499	
Volume (vph)	181	176	81	10	40	17	31	1319	54	150	1396	112
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	185	180	83	10	41	17	32	1346	55	153	1424	114
RTOR Reduction (vph)	0	7	0	0	10	0	0	4	0	0	8	0
Lane Group Flow (vph)	0	441	0	0	58	0	32	1397	0	153	1530	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0		83.4	83.4		83.4	83.4	
Effective Green, g (s)		29.0			29.0		83.0	83.0		83.0	83.0	
Actuated g/C Ratio		0.24			0.24		0.69	0.69		0.69	0.69	
Clearance Time (s)		3.0			3.0		3.6	3.6		3.6	3.6	
Vehicle Extension (s)		3.0			3.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		329			362		151	3128		181	3112	
v/s Ratio Prot								0.31			0.34	
v/s Ratio Perm		c0.32			0.04		0.15			c0.59		
v/c Ratio		1.34			0.16		0.21	0.45		0.85	0.49	
Uniform Delay, d1		45.5			35.9		6.7	8.3		13.7	8.6	
Progression Factor		1.00			1.00		1.00	1.00		0.70	0.44	
Incremental Delay, d2		172.6			0.9		3.2	0.5		26.1	0.4	
Delay (s)		218.1			36.8		9.9	8.7		35.7	4.2	
Level of Service		F			D		A	A		D	A	
Approach Delay (s)		218.1			36.8			8.7			7.0	
Approach LOS		F			D			A			A	

Intersection Summary			
HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	0.97		1.00	0.99		1.00	0.99		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1582	4336		1583	4448		1583	4422		1583	4378	
Flt Permitted	0.11	1.00		0.11	1.00		0.11	1.00		0.11	1.00	
Satd. Flow (perm)	185	4336		190	4448		190	4422		190	4378	
Volume (vph)	144	1400	168	204	1139	79	171	1257	140	128	1256	176
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	153	1489	179	217	1212	84	182	1337	149	136	1336	187
RTOR Reduction (vph)	0	15	0	0	8	0	0	14	0	0	18	0
Lane Group Flow (vph)	153	1653	0	217	1288	0	182	1472	0	136	1505	0
Confl. Peds. (#/hr)	129		199	199		129	103		84	84		103
Confl. Bikes (#/hr)			6			13			4			11
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	45.5	36.5		43.5	35.5		42.0	35.0		42.0	35.0	
Effective Green, g (s)	44.0	36.0		42.0	35.0		41.0	35.0		41.0	35.0	
Actuated g/C Ratio	0.44	0.36		0.42	0.35		0.41	0.35		0.41	0.35	
Clearance Time (s)	3.0	3.5		3.0	3.5		3.0	4.0		3.0	4.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	193	1561		177	1557		161	1548		161	1532	
v/s Ratio Prot	0.06	0.38		c0.09	0.29		c0.07	0.33		0.05	0.34	
v/s Ratio Perm	0.29			c0.43			c0.39			0.29		
v/c Ratio	0.79	1.06		1.23	0.83		1.13	0.95		0.84	0.98	
Uniform Delay, d1	20.6	32.0		24.6	29.7		25.5	31.7		22.8	32.2	
Progression Factor	0.83	1.09		1.62	0.85		1.71	0.70		1.00	1.00	
Incremental Delay, d2	15.6	38.4		138.9	4.8		102.9	11.8		30.2	19.1	
Delay (s)	32.7	73.2		178.8	30.0		146.5	34.0		53.0	51.3	
Level of Service	C	E		F	C		F	C		D	D	
Approach Delay (s)		69.8			51.3			46.3			51.5	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM Average Control Delay	55.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.96			1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.99	1.00	
Frt		0.95			0.99		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1512			1604		1555	4461		1573	4477	
Flt Permitted		0.94			0.32		0.12	1.00		0.11	1.00	
Satd. Flow (perm)		1422			528		191	4461		175	4477	
Volume (vph)	56	269	203	116	106	19	57	1462	116	31	1451	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	59	283	214	122	112	20	60	1539	122	33	1527	63
RTOR Reduction (vph)	0	20	0	0	3	0	0	9	0	0	4	0
Lane Group Flow (vph)	0	536	0	0	251	0	60	1652	0	33	1586	0
Confl. Peds. (#/hr)	29		64	64		29	102		42	42		102
Confl. Bikes (#/hr)			4			5			5			15
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.0			29.0		64.2	64.2		64.2	64.2	
Effective Green, g (s)		28.0			28.0		64.0	64.0		64.0	64.0	
Actuated g/C Ratio		0.28			0.28		0.64	0.64		0.64	0.64	
Clearance Time (s)		3.0			3.0		3.8	3.8		3.8	3.8	
Vehicle Extension (s)		3.0			3.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		398			148		122	2855		112	2865	
v/s Ratio Prot								c0.37			0.35	
v/s Ratio Perm		0.38			c0.48		0.31			0.19		
v/c Ratio		1.35			1.70		0.49	0.58		0.29	0.55	
Uniform Delay, d1		36.0			36.0		9.5	10.3		8.0	10.0	
Progression Factor		1.00			1.00		1.00	1.00		1.30	1.60	
Incremental Delay, d2		171.8			340.8		13.5	0.9		0.6	0.1	
Delay (s)		207.8			376.8		22.9	11.2		11.0	16.1	
Level of Service		F			F		C	B		B	B	
Approach Delay (s)		207.8			376.8			11.6			16.0	
Approach LOS		F			F			B			B	

Intersection Summary			
HCM Average Control Delay	61.9	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4492		1583	4522		1583	4506		1583	4456	
Flt Permitted	0.19	1.00		0.10	1.00		0.14	1.00		0.14	1.00	
Satd. Flow (perm)	317	4492		171	4522		230	4506		230	4456	
Volume (vph)	137	1732	162	142	1128	48	132	1406	98	136	1334	213
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	147	1862	174	153	1213	52	142	1512	105	146	1434	229
RTOR Reduction (vph)	0	12	0	0	5	0	0	9	0	0	24	0
Lane Group Flow (vph)	147	2024	0	153	1260	0	142	1608	0	146	1639	0
Turn Type	Perm			pm+pt			pm+pt			pm+pt		
Protected Phases		6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	34.0	34.0		43.0	43.0		33.0	28.0		33.0	28.0	
Effective Green, g (s)	35.0	35.0		44.0	44.0		34.0	29.0		34.0	29.0	
Actuated g/C Ratio	0.39	0.39		0.49	0.49		0.38	0.32		0.38	0.32	
Clearance Time (s)	5.0	5.0		3.5	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	123	1747		162	2211		162	1452		162	1436	
v/s Ratio Prot		0.45		c0.05	0.28		0.05	0.36		c0.05	c0.37	
v/s Ratio Perm	c0.46			0.41			0.28			0.29		
v/c Ratio	1.20	1.16		0.94	0.57		0.88	1.11		0.90	1.14	
Uniform Delay, d1	27.5	27.5		21.4	16.3		25.1	30.5		25.3	30.5	
Progression Factor	1.40	1.38		1.00	1.00		1.31	0.47		1.00	1.00	
Incremental Delay, d2	95.2	72.0		54.0	1.1		23.4	54.4		43.2	72.4	
Delay (s)	133.8	110.0		75.5	17.4		56.1	68.7		68.5	102.9	
Level of Service	F	F		E	B		E	E		E	F	
Approach Delay (s)		111.6			23.6			67.6			100.1	
Approach LOS		F			C			E			F	

Intersection Summary			
HCM Average Control Delay	80.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.98		1.00	0.99		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3103		1583	3148		1583	4477		1583	4502	
Flt Permitted	0.37	1.00		0.13	1.00		0.12	1.00		0.14	1.00	
Satd. Flow (perm)	623	3103		221	3148		202	4477		230	4502	
Volume (vph)	106	1008	155	147	654	26	204	1518	181	57	1572	119
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	114	1084	167	158	703	28	219	1632	195	61	1690	128
RTOR Reduction (vph)	0	13	0	0	3	0	0	17	0	0	9	0
Lane Group Flow (vph)	114	1238	0	158	728	0	219	1810	0	61	1809	0
Turn Type	Perm			pm+pt			pm+pt			Perm		
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	25.2	25.2		38.0	38.0		42.0	42.0		28.0	28.0	
Effective Green, g (s)	26.2	26.2		39.0	39.0		43.0	43.0		29.0	29.0	
Actuated g/C Ratio	0.29	0.29		0.43	0.43		0.48	0.48		0.32	0.32	
Clearance Time (s)	5.0	5.0		3.0	5.0		4.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	181	903		229	1364		250	2139		74	1451	
v/s Ratio Prot		c0.40		c0.07	0.23		0.10	c0.40			c0.40	
v/s Ratio Perm	0.18			0.23			0.32			0.27		
v/c Ratio	0.63	1.37		0.69	0.53		0.88	0.85		0.82	1.25	
Uniform Delay, d1	27.7	31.9		40.7	18.8		41.3	20.6		28.1	30.5	
Progression Factor	1.00	1.00		1.83	1.83		1.00	1.00		0.73	0.69	
Incremental Delay, d2	15.5	173.8		7.1	1.3		27.1	4.4		9.2	111.4	
Delay (s)	43.2	205.7		81.6	35.6		68.4	25.0		29.7	132.5	
Level of Service	D	F		F	D		E	C		C	F	
Approach Delay (s)		192.1			43.8			29.6			129.2	
Approach LOS		F			D			C			F	

Intersection Summary			
HCM Average Control Delay	97.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.97		1.00	0.98		1.00	0.97	
Flpb, ped/bikes	0.94	1.00		0.99	1.00		0.97	1.00		0.95	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1491	3045		1561	3000		1529	3067		1508	3023	
Flt Permitted	0.32	1.00		0.15	1.00		0.17	1.00		0.35	1.00	
Satd. Flow (perm)	504	3045		246	3000		268	3067		556	3023	
Volume (vph)	166	939	158	27	566	103	86	495	61	186	808	111
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	171	968	163	28	584	106	89	510	63	192	833	114
RTOR Reduction (vph)	0	11	0	0	12	0	0	8	0	0	9	0
Lane Group Flow (vph)	171	1120	0	28	678	0	89	565	0	192	938	0
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	59.6	59.6		59.6	59.6		49.1	49.1		49.1	49.1	
Effective Green, g (s)	61.5	61.5		61.5	61.5		50.5	50.5		50.5	50.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.42	0.42		0.42	0.42	
Clearance Time (s)	5.9	5.9		5.9	5.9		5.4	5.4		5.4	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	258	1561		126	1538		113	1291		234	1272	
v/s Ratio Prot		c0.37			0.23			0.18			0.31	
v/s Ratio Perm	0.34			0.11			0.33			c0.35		
v/c Ratio	0.66	0.72		0.22	0.44		0.79	0.44		0.82	0.74	
Uniform Delay, d1	21.6	22.5		16.1	18.4		30.1	24.7		30.7	29.2	
Progression Factor	1.00	1.00		0.36	0.33		0.78	0.82		1.00	1.00	
Incremental Delay, d2	12.7	2.9		2.4	0.5		36.8	0.9		26.5	3.9	
Delay (s)	34.3	25.4		8.2	6.5		60.3	21.0		57.2	33.0	
Level of Service	C	C		A	A		E	C		E	C	
Approach Delay (s)		26.6			6.6			26.3			37.1	
Approach LOS		C			A			C			D	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.98			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1583	4527		1583	4539			1607			1640	
Flt Permitted	0.15	1.00		0.09	1.00			0.74			0.98	
Satd. Flow (perm)	243	4527		155	4539			1205			1618	
Volume (vph)	46	1604	57	71	1329	21	41	100	31	14	269	33
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	49	1725	61	76	1429	23	44	108	33	15	289	35
RTOR Reduction (vph)	0	4	0	0	2	0	0	8	0	0	5	0
Lane Group Flow (vph)	49	1782	0	76	1450	0	0	178	0	0	335	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	68.0	68.0		68.0	68.0			26.0			26.0	
Effective Green, g (s)	67.0	67.0		67.0	67.0			25.0			25.0	
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.25			0.25	
Clearance Time (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			3.0			3.0	
Lane Grp Cap (vph)	163	3033		104	3041			301			405	
v/s Ratio Prot		0.39			0.32							
v/s Ratio Perm	0.20			c0.49				0.15			c0.21	
v/c Ratio	0.30	0.59		0.73	0.48			0.59			0.83	
Uniform Delay, d1	6.8	9.0		10.7	8.0			33.0			35.4	
Progression Factor	0.17	0.21		0.84	0.37			1.00			1.00	
Incremental Delay, d2	1.5	0.3		18.3	0.2			8.2			17.3	
Delay (s)	2.7	2.1		27.2	3.2			41.2			52.7	
Level of Service	A	A		C	A			D			D	
Approach Delay (s)		2.1			4.4			41.2			52.7	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	4550	1417	1583	1667	1417	1583	1645	
Flt Permitted	0.21	1.00	1.00	0.21	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	357	3167	1417	351	4550	1417	1583	1667	1417	1583	1645	
Volume (vph)	125	889	119	111	862	58	89	586	41	59	649	63
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	133	946	127	118	917	62	95	623	44	63	690	67
RTOR Reduction (vph)	0	0	87	0	0	42	0	0	26	0	6	0
Lane Group Flow (vph)	133	946	40	118	917	20	95	623	18	63	751	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			4		1	2		1	6	
Permitted Phases	4		4	4		4			2			
Actuated Green, G (s)	18.0	18.0	18.0	18.0	18.0	18.0	4.0	24.2	24.2	4.0	24.2	
Effective Green, g (s)	19.0	19.0	19.0	19.0	19.0	19.0	4.0	25.0	25.0	4.0	25.0	
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.07	0.42	0.42	0.07	0.42	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.8	4.8	4.0	4.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	113	1003	449	111	1441	449	106	695	590	106	685	
v/s Ratio Prot		0.30			0.20		c0.06	0.37		0.04	c0.46	
v/s Ratio Perm	c0.37		0.03	0.34		0.01			0.01			
v/c Ratio	1.18	0.94	0.09	1.06	0.64	0.04	0.90	0.90	0.03	0.59	1.10	
Uniform Delay, d1	20.5	20.0	14.4	20.5	17.5	14.2	27.8	16.3	10.3	27.2	17.5	
Progression Factor	1.00	1.00	1.00	1.35	1.06	0.90	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	139.9	17.6	0.4	101.1	2.0	0.2	55.3	16.5	0.1	8.6	63.8	
Delay (s)	160.4	37.6	14.8	128.8	20.6	13.0	83.1	32.8	10.4	35.9	81.3	
Level of Service	F	D	B	F	C	B	F	C	B	D	F	
Approach Delay (s)		48.8			31.8			37.8			77.8	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM Average Control Delay	48.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4484		1583	4528		1583	3084		1583	3111	
Flt Permitted	0.10	1.00		0.10	1.00		0.13	1.00		0.25	1.00	
Satd. Flow (perm)	170	4484		161	4528		218	3084		412	3111	
Volume (vph)	138	1649	176	152	1289	43	152	535	113	73	673	90
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	142	1700	181	157	1329	44	157	552	116	75	694	93
RTOR Reduction (vph)	0	13	0	0	4	0	0	17	0	0	10	0
Lane Group Flow (vph)	142	1868	0	157	1369	0	157	651	0	75	777	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	50.3	42.4		50.5	42.5		39.6	31.6		35.6	29.6	
Effective Green, g (s)	48.3	41.4		48.5	41.5		37.6	30.6		33.6	28.6	
Actuated g/C Ratio	0.48	0.41		0.48	0.42		0.38	0.31		0.34	0.29	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	180	1856		178	1879		178	944		197	890	
v/s Ratio Prot	0.05	c0.42		c0.06	0.30		c0.06	0.21		0.02	0.25	
v/s Ratio Perm	0.33			0.37			c0.27			0.11		
v/c Ratio	0.79	1.01		0.88	0.73		0.88	0.69		0.38	0.87	
Uniform Delay, d1	17.9	29.3		21.4	24.5		24.2	30.5		23.8	34.0	
Progression Factor	2.03	1.40		1.75	1.80		1.00	1.00		1.00	1.00	
Incremental Delay, d2	14.4	19.5		32.7	2.3		35.5	4.1		0.4	11.6	
Delay (s)	50.6	60.5		70.2	46.4		59.7	34.6		24.3	45.5	
Level of Service	D	E		E	D		E	C		C	D	
Approach Delay (s)		59.8			48.8			39.4			43.7	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM Average Control Delay	50.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4505		1583	4525		1583	3110		1583	3084	
Flt Permitted	0.12	1.00		0.10	1.00		0.14	1.00		0.17	1.00	
Satd. Flow (perm)	195	4505		175	4525		239	3110		275	3084	
Volume (vph)	81	1862	133	153	1230	47	165	754	102	47	687	146
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	86	1981	141	163	1309	50	176	802	109	50	731	155
RTOR Reduction (vph)	0	9	0	0	5	0	0	11	0	0	20	0
Lane Group Flow (vph)	86	2113	0	163	1354	0	176	900	0	50	866	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	42.5	36.8		47.1	39.1		36.2	28.9		29.5	25.2	
Effective Green, g (s)	40.5	35.8		45.1	38.1		34.9	27.9		27.5	24.2	
Actuated g/C Ratio	0.45	0.40		0.50	0.42		0.39	0.31		0.31	0.27	
Clearance Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	160	1792		197	1916		197	964		132	829	
v/s Ratio Prot	0.03	c0.47		c0.06	0.30		c0.07	0.29		0.01	c0.28	
v/s Ratio Perm	0.21			0.35			0.28			0.10		
v/c Ratio	0.54	1.18		0.83	0.71		0.89	0.93		0.38	1.04	
Uniform Delay, d1	15.8	27.1		42.7	21.4		22.3	30.2		23.7	32.9	
Progression Factor	1.00	1.00		0.79	0.96		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.7	86.7		17.5	1.6		35.4	16.8		0.7	43.6	
Delay (s)	17.5	113.8		51.1	22.2		57.7	46.9		24.4	76.5	
Level of Service	B	F		D	C		E	D		C	E	
Approach Delay (s)		110.1			25.3			48.7			73.7	
Approach LOS		F			C			D			E	

Intersection Summary			
HCM Average Control Delay	70.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91			0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99			0.99		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4520			4510		1583	1667	1417	1583	3137	
Flt Permitted	0.09	1.00			1.00		0.30	1.00	1.00	0.40	1.00	
Satd. Flow (perm)	147	4520			4510		505	1667	1417	663	3137	
Volume (vph)	159	1608	74	0	1450	91	137	297	94	88	478	32
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	169	1711	79	0	1543	97	146	316	100	94	509	34
RTOR Reduction (vph)	0	4	0	0	7	0	0	0	68	0	5	0
Lane Group Flow (vph)	169	1786	0	0	1633	0	146	316	32	94	538	0
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	52.5	52.5			42.5		39.8	32.9	32.9	37.2	31.6	
Effective Green, g (s)	51.5	51.5			41.5		37.8	31.9	31.9	35.2	30.6	
Actuated g/C Ratio	0.52	0.52			0.42		0.38	0.32	0.32	0.35	0.31	
Clearance Time (s)	3.0	3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Vehicle Extension (s)	2.0	5.0			5.0		2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	162	2328			1872		254	532	452	276	960	
v/s Ratio Prot	c0.06	0.40			0.36		c0.03	c0.19		0.02	0.17	
v/s Ratio Perm	c0.48						0.18		0.02	0.10		
v/c Ratio	1.04	0.77			0.87		0.57	0.59	0.07	0.34	0.56	
Uniform Delay, d1	22.5	19.4			26.8		22.5	28.6	23.7	22.8	29.1	
Progression Factor	1.30	1.34			1.90		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	79.3	2.3			4.2		2.0	4.8	0.3	0.3	2.4	
Delay (s)	108.5	28.4			55.1		24.5	33.4	24.0	23.1	31.4	
Level of Service	F	C			E		C	C	C	C	C	
Approach Delay (s)		35.3			55.1			29.4			30.2	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM Average Control Delay	40.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	2223		1118	2219		1118	2202		1118	2211	
Flt Permitted	0.11	1.00		0.08	1.00		0.46	1.00		0.36	1.00	
Satd. Flow (perm)	134	2223		93	2219		542	2202		421	2211	
Volume (vph)	13	1615	64	50	1414	72	45	377	42	100	300	23
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	13	1665	66	52	1458	74	46	389	43	103	309	24
RTOR Reduction (vph)	0	3	0	0	4	0	0	9	0	0	6	0
Lane Group Flow (vph)	13	1728	0	52	1528	0	46	423	0	103	327	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	60.5	60.5		60.5	60.5		20.8	20.8		20.8	20.8	
Effective Green, g (s)	61.0	61.0		61.0	61.0		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2		4.2	4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	91	1507		63	1504		126	514		98	516	
v/s Ratio Prot		c0.78			0.69			0.19			0.15	
v/s Ratio Perm	0.10			0.56			0.08			c0.24		
v/c Ratio	0.14	1.15		0.83	1.02		0.37	0.82		1.05	0.63	
Uniform Delay, d1	5.2	14.5		10.6	14.5		28.9	32.7		34.5	31.0	
Progression Factor	0.62	0.41		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	66.8		71.0	27.2		8.0	13.8		105.4	5.8	
Delay (s)	3.5	72.7		81.6	41.7		36.9	46.6		139.9	36.9	
Level of Service	A	E		F	D		D	D		F	D	
Approach Delay (s)		72.2			43.0			45.6			61.2	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM Average Control Delay	57.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	111.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			0.99	
Frt		0.97						0.98			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		3017						3060			3119	
Flt Permitted		1.00						1.00			0.83	
Satd. Flow (perm)		3017						3060			2606	
Volume (vph)	24	316	76	0	0	0	0	289	51	71	343	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	343	83	0	0	0	0	314	55	77	373	0
RTOR Reduction (vph)	0	18	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	434	0	0	0	0	0	346	0	0	450	0
Confl. Peds. (#/hr)	5		38				63		59	59		63
Confl. Bikes (#/hr)			5						1			1
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		37.0						17.0			17.0	
Effective Green, g (s)		36.0						16.0			16.0	
Actuated g/C Ratio		0.60						0.27			0.27	
Clearance Time (s)		3.0						3.0			3.0	
Vehicle Extension (s)		5.0						3.0			3.0	
Lane Grp Cap (vph)		1810						816			695	
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.14									c0.17	
v/c Ratio		0.24						0.42			0.65	
Uniform Delay, d1		5.6						18.2			19.5	
Progression Factor		0.92						1.00			1.00	
Incremental Delay, d2		0.3						1.6			4.6	
Delay (s)		5.4						19.8			24.1	
Level of Service		A						B			C	
Approach Delay (s)		5.4			0.0			19.8			24.1	
Approach LOS		A			A			B			C	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0				4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99				0.94		1.00	0.92
Flpb, ped/bikes	1.00	1.00		0.99	1.00				1.00		0.95	1.00
Frt	1.00	1.00		1.00	0.99				0.86		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00				1.00		0.95	1.00
Satd. Flow (prot)	1583	4511		1565	4455				1355		1518	1302
Flt Permitted	0.95	1.00		0.95	1.00				1.00		0.95	1.00
Satd. Flow (perm)	1583	4511		1565	4455				1355		1518	1302
Volume (vph)	148	1409	46	3	1314	131	0	0	69	162	10	229
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	154	1468	48	3	1369	136	0	0	72	169	10	239
RTOR Reduction (vph)	0	3	0	0	12	0	0	0	52	0	0	132
Lane Group Flow (vph)	154	1513	0	3	1493	0	0	0	20	0	179	107
Confl. Peds. (#/hr)	26		44	44		26	50		36	36		50
Confl. Bikes (#/hr)			5			6						3
Turn Type	Prot			Prot					custom	Perm		Perm
Protected Phases	5	2		1	6						4	
Permitted Phases									8	4		4
Actuated Green, G (s)	11.7	60.9		1.1	50.3				29.0		29.0	29.0
Effective Green, g (s)	10.7	59.9		0.1	49.3				28.0		28.0	28.0
Actuated g/C Ratio	0.11	0.60		0.00	0.49				0.28		0.28	0.28
Clearance Time (s)	3.0	3.0		3.0	3.0				3.0		3.0	3.0
Vehicle Extension (s)	2.0	5.0		2.0	5.0				3.0		3.0	3.0
Lane Grp Cap (vph)	169	2702		2	2196				379		425	365
v/s Ratio Prot	c0.10	0.34		0.00	c0.34							
v/s Ratio Perm									0.01		0.12	0.08
v/c Ratio	0.91	0.56		1.50	0.68				0.05		0.42	0.29
Uniform Delay, d1	44.2	12.1		50.0	19.3				26.3		29.4	28.2
Progression Factor	1.00	1.00		0.61	1.87				1.00		1.00	1.00
Incremental Delay, d2	43.7	0.8		689.4	0.9				0.3		3.0	2.0
Delay (s)	87.9	12.9		719.6	37.2				26.6		32.4	30.2
Level of Service	F	B		F	D				C		C	C
Approach Delay (s)		19.9			38.5			26.6			31.2	
Approach LOS		B			D			C			C	

Intersection Summary			
HCM Average Control Delay	29.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	2225		1118	2225		1118	2162		1118	2185	
Flt Permitted	0.11	1.00		0.09	1.00		0.33	1.00		0.16	1.00	
Satd. Flow (perm)	130	2225		111	2225		392	2162		188	2185	
Volume (vph)	51	1459	44	67	1382	42	86	662	186	57	410	72
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	53	1520	46	70	1440	44	90	690	194	59	427	75
RTOR Reduction (vph)	0	2	0	0	3	0	0	29	0	0	16	0
Lane Group Flow (vph)	53	1564	0	70	1481	0	90	855	0	59	486	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		24.8	24.8		24.8	24.8	
Effective Green, g (s)	57.0	57.0		57.0	57.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.63	0.63		0.63	0.63		0.28	0.28		0.28	0.28	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2		4.2	4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	82	1409		70	1409		109	601		52	607	
v/s Ratio Prot		c0.70			0.67			c0.40			0.22	
v/s Ratio Perm	0.41			0.63			0.23			0.31		
v/c Ratio	0.65	1.11		1.00	1.05		0.83	1.42		1.13	0.80	
Uniform Delay, d1	10.2	16.5		16.5	16.5		30.5	32.5		32.5	30.2	
Progression Factor	1.00	1.00		0.61	0.54		0.54	0.49		1.00	1.00	
Incremental Delay, d2	33.2	60.1		56.7	28.9		18.9	193.2		166.6	10.7	
Delay (s)	43.4	76.6		66.8	37.8		35.4	209.1		199.1	40.8	
Level of Service	D	E		E	D		D	F		F	D	
Approach Delay (s)		75.5			39.1			193.1			57.5	
Approach LOS		E			D			F			E	

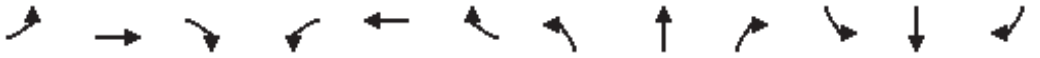
Intersection Summary			
HCM Average Control Delay	85.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	131.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00		0.95	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1118	2188		1118	2217		1118	2235	1000		2193	
Flt Permitted	0.30	1.00		0.13	1.00		0.32	1.00	1.00		1.00	
Satd. Flow (perm)	358	2188		149	2217		376	2235	1000		2193	
Volume (vph)	116	1083	180	70	706	40	82	751	192	0	475	68
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	122	1140	189	74	743	42	86	791	202	0	500	72
RTOR Reduction (vph)	0	15	0	0	5	0	0	0	53	0	13	0
Lane Group Flow (vph)	122	1314	0	74	780	0	86	791	149	0	559	0
Turn Type	Perm			Perm			Perm		Perm			
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8			
Actuated Green, G (s)	51.5	51.5		51.5	51.5		29.8	29.8	29.8		29.8	
Effective Green, g (s)	52.0	52.0		52.0	52.0		30.0	30.0	30.0		30.0	
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.33	0.33	0.33		0.33	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.2	4.2	4.2		4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	207	1264		86	1281		125	745	333		731	
v/s Ratio Prot		c0.60			0.35			c0.35			0.26	
v/s Ratio Perm	0.34			0.50			0.23		0.15			
v/c Ratio	0.59	1.04		0.86	0.61		0.69	1.06	0.45		0.77	
Uniform Delay, d1	12.2	19.0		16.0	12.4		26.0	30.0	23.5		26.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		0.43	
Incremental Delay, d2	11.7	36.3		63.9	2.2		26.7	50.6	4.3		4.3	
Delay (s)	23.9	55.3		79.9	14.5		52.6	80.6	27.8		15.9	
Level of Service	C	E		E	B		D	F	C		B	
Approach Delay (s)		52.6			20.2			68.5			15.9	
Approach LOS		D			C			E			B	

Intersection Summary			
HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						0.97			1.00	
Flpb, ped/bikes		0.98						1.00			0.99	
Frt		1.00						0.98			1.00	
Flt Protected		0.98						1.00			0.99	
Satd. Flow (prot)		3047						2988			3128	
Flt Permitted		0.98						1.00			0.67	
Satd. Flow (perm)		3047						2988			2124	
Volume (vph)	159	260	0	0	0	0	0	749	146	97	586	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	185	302	0	0	0	0	0	871	170	113	681	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	487	0	0	0	0	0	1014	0	0	794	0
Confl. Peds. (#/hr)	60								223	223		
Confl. Bikes (#/hr)			1						3			
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		21.0						33.0			33.0	
Effective Green, g (s)		20.0						32.0			32.0	
Actuated g/C Ratio		0.33						0.53			0.53	
Clearance Time (s)		3.0						3.0			3.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1016						1594			1133	
v/s Ratio Prot								0.34				
v/s Ratio Perm		0.16									c0.37	
v/c Ratio		0.48						0.64			0.70	
Uniform Delay, d1		15.9						9.9			10.4	
Progression Factor		1.18						1.00			1.00	
Incremental Delay, d2		1.5						2.0			3.6	
Delay (s)		20.2						11.8			14.1	
Level of Service		C						B			B	
Approach Delay (s)		20.2			0.0			11.8			14.1	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00	0.97		1.00	0.97		1.00	1.00	0.80		1.00	0.84
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1579	4352		1583	4329		1583	3167	1133		3167	1189
Flt Permitted	0.13	1.00		0.09	1.00		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	215	4352		148	4329		1583	3167	1133		3167	1189
Volume (vph)	133	1457	149	324	1110	137	149	614	119	0	489	118
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	141	1550	159	345	1181	146	159	653	127	0	520	126
RTOR Reduction (vph)	0	13	0	0	16	0	0	0	83	0	0	98
Lane Group Flow (vph)	141	1696	0	345	1311	0	159	653	44	0	520	28
Confl. Peds. (#/hr)	216		278	278		216	112		142	142		112
Confl. Bikes (#/hr)			9			5			5			3
Turn Type	pm+pt			pm+pt			Prot		Perm			Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases	2			6					8			4
Actuated Green, G (s)	53.1	45.0		54.9	45.9		8.9	34.9	34.9		22.9	22.9
Effective Green, g (s)	51.1	44.0		52.9	44.9		8.0	34.0	34.0		22.0	22.0
Actuated g/C Ratio	0.52	0.45		0.54	0.46		0.08	0.35	0.35		0.22	0.22
Clearance Time (s)	3.0	3.0		3.0	3.0		3.1	3.1	3.1		3.1	3.1
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	211	1954		197	1983		129	1099	393		711	267
v/s Ratio Prot	0.05	0.39		c0.14	0.30		c0.10	0.21			c0.16	
v/s Ratio Perm	0.30			c0.80					0.04			0.02
v/c Ratio	0.67	0.87		1.75	0.66		1.23	0.59	0.11		0.73	0.11
Uniform Delay, d1	14.3	24.4		24.7	20.6		45.0	26.3	21.7		35.3	30.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.1	5.5		358.2	1.8		154.7	2.4	0.6		6.5	0.8
Delay (s)	20.4	29.9		382.9	22.4		199.7	28.7	22.3		41.8	31.0
Level of Service	C	C		F	C		F	C	C		D	C
Approach Delay (s)		29.2			96.8			56.8			39.7	
Approach LOS		C			F			E			D	

Intersection Summary			
HCM Average Control Delay	57.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	98.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frt		0.96			0.96		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3011			2995		1583	3121		1583	3138	
Flt Permitted		0.85			0.69		0.22	1.00		0.25	1.00	
Satd. Flow (perm)		2581			2109		370	3121		423	3138	
Volume (vph)	62	230	114	81	115	71	84	706	75	68	789	50
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	68	253	125	89	126	78	92	776	82	75	867	55
RTOR Reduction (vph)	0	45	0	0	41	0	0	8	0	0	4	0
Lane Group Flow (vph)	0	401	0	0	252	0	92	850	0	75	918	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.0			29.0		52.4	46.6		51.6	46.2	
Effective Green, g (s)		28.0			28.0		50.4	45.6		49.6	45.2	
Actuated g/C Ratio		0.31			0.31		0.56	0.51		0.55	0.50	
Clearance Time (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		3.0			3.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)		803			656		272	1581		290	1576	
v/s Ratio Prot							c0.02	0.27		0.01	c0.29	
v/s Ratio Perm		c0.16			0.12		0.17			0.13		
v/c Ratio		0.50			0.38		0.34	0.54		0.26	0.58	
Uniform Delay, d1		25.3			24.2		10.4	15.1		10.2	15.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.2			0.4		0.3	1.3		0.2	1.6	
Delay (s)		27.5			24.6		10.7	16.4		10.4	17.3	
Level of Service		C			C		B	B		B	B	
Approach Delay (s)		27.5			24.6			15.8			16.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95			0.95	
Frt	1.00	1.00		1.00	1.00		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1583	4531		1583	4550		1583	3053			3078	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1583	4531		1583	4550		1583	3053			3078	
Volume (vph)	54	2074	59	62	1755	0	117	217	68	0	463	106
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	56	2160	61	65	1828	0	122	226	71	0	482	110
RTOR Reduction (vph)	0	3	0	0	0	0	0	35	0	0	22	0
Lane Group Flow (vph)	56	2218	0	65	1828	0	122	262	0	0	570	0
Turn Type	Prot			Prot			Split					
Protected Phases	1!	2!		5!	6!		8	8			7	
Permitted Phases												
Actuated Green, G (s)	5.1	35.8		6.9	33.0		12.1	12.1			22.0	
Effective Green, g (s)	4.6	35.3		6.9	33.0		12.1	12.1			22.0	
Actuated g/C Ratio	0.05	0.39		0.08	0.37		0.13	0.13			0.24	
Clearance Time (s)	3.5	3.5		4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	81	1777		121	1668		213	410			752	
v/s Ratio Prot	0.04	c0.49		c0.04	0.40		0.08	c0.09			c0.19	
v/s Ratio Perm												
v/c Ratio	0.69	1.25		0.54	1.10		0.57	0.64			0.76	
Uniform Delay, d1	42.0	27.4		40.0	28.5		36.5	36.9			31.5	
Progression Factor	1.26	0.55		1.50	0.37		1.00	1.00			1.00	
Incremental Delay, d2	2.3	112.1		0.4	44.2		3.7	3.3			7.0	
Delay (s)	55.3	127.2		60.4	54.8		40.2	40.2			38.6	
Level of Service	E	F		E	D		D	D			D	
Approach Delay (s)		125.4			55.0			40.2			38.6	
Approach LOS		F			D			D			D	

Intersection Summary			
HCM Average Control Delay	82.9	HCM Level of Service	F
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frt		0.99		1.00	0.99		1.00	0.98		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		4518		1583	4514		1583	3089		1583	3167	
Flt Permitted		1.00		0.95	1.00		0.29	1.00		0.40	1.00	
Satd. Flow (perm)		4518		1583	4514		482	3089		666	3167	
Volume (vph)	0	2044	101	55	1669	93	108	324	63	106	503	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2107	104	57	1721	96	111	334	65	109	519	0
RTOR Reduction (vph)	0	5	0	0	6	0	0	18	0	0	0	0
Lane Group Flow (vph)	0	2206	0	57	1811	0	111	381	0	109	519	0
Turn Type				Prot			Perm			Perm		
Protected Phases		2!		5!	6			7			7	
Permitted Phases							7			7		
Actuated Green, G (s)		35.8		6.9	33.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		35.3		6.9	33.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio		0.39		0.08	0.37		0.24	0.24		0.24	0.24	
Clearance Time (s)		3.5		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1772		121	1655		118	755		163	774	
v/s Ratio Prot		c0.49		c0.04	0.40			0.12			0.16	
v/s Ratio Perm							c0.23			0.16		
v/c Ratio		1.24		0.47	1.09		0.94	0.50		0.67	0.67	
Uniform Delay, d1		27.4		39.8	28.5		33.4	29.3		30.7	30.7	
Progression Factor		0.20		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		110.6		2.9	52.5		68.1	2.4		19.7	4.6	
Delay (s)		116.1		42.7	81.0		101.5	31.7		50.4	35.3	
Level of Service		F		D	F		F	C		D	D	
Approach Delay (s)		116.1			79.9			46.9			37.9	
Approach LOS		F			E			D			D	

Intersection Summary			
HCM Average Control Delay	86.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	24.1
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						0.95		1.00	0.95	
Frpb, ped/bikes		0.97						0.93		1.00	1.00	
Flpb, ped/bikes		0.95						1.00		0.80	1.00	
Frt		0.98						0.97		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		2859						2859		1270	3167	
Flt Permitted		0.99						1.00		0.51	1.00	
Satd. Flow (perm)		2859						2859		681	3167	
Volume (vph)	44	224	31	0	0	0	0	263	67	89	362	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	236	33	0	0	0	0	277	71	94	381	0
RTOR Reduction (vph)	0	15	0	0	0	0	0	38	0	0	0	0
Lane Group Flow (vph)	0	300	0	0	0	0	0	310	0	94	381	0
Confl. Peds. (#/hr)	173		248	248		173	221		404	404		221
Confl. Bikes (#/hr)			3			2			1			4
Turn Type	Perm									Perm		
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		17.0						17.0		17.0	17.0	
Effective Green, g (s)		16.0						16.0		16.0	16.0	
Actuated g/C Ratio		0.27						0.27		0.27	0.27	
Clearance Time (s)		3.0						3.0		3.0	3.0	
Vehicle Extension (s)		5.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		762						762		182	845	
v/s Ratio Prot								0.11			0.12	
v/s Ratio Perm		0.11								c0.14		
v/c Ratio		0.39						0.41		0.52	0.45	
Uniform Delay, d1		18.0						18.1		18.7	18.3	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		1.5						1.6		10.1	1.7	
Delay (s)		19.6						19.7		28.8	20.1	
Level of Service		B						B		C	C	
Approach Delay (s)		19.6			0.0			19.7			21.8	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91			0.91		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99			0.97		1.00	0.87		1.00	1.00	0.78
Flpb, ped/bikes	0.97	1.00			1.00		0.81	1.00		1.00	1.00	1.00
Frt	1.00	1.00			0.99		1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1543	4509			4379		1277	1353		1583	1667	1102
Flt Permitted	0.12	1.00			1.00		0.71	1.00		0.95	1.00	1.00
Satd. Flow (perm)	188	4509			4379		956	1353		1583	1667	1102
Volume (vph)	100	1564	29	0	1338	121	111	97	82	127	70	146
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	102	1596	30	0	1365	123	113	99	84	130	71	149
RTOR Reduction (vph)	0	2	0	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	102	1624	0	0	1477	0	113	183	0	130	71	149
Confl. Peds. (#/hr)	244		131	131		244	166		211	211		166
Confl. Bikes (#/hr)			3			5			2			3
Turn Type	Perm						Perm			Prot		custom
Protected Phases		2			6			8		7		
Permitted Phases	2						8				4	4
Actuated Green, G (s)	49.0	49.0			49.0		21.0	21.0		11.0	35.0	35.0
Effective Green, g (s)	48.0	48.0			48.0		20.0	20.0		10.0	34.0	34.0
Actuated g/C Ratio	0.53	0.53			0.53		0.22	0.22		0.11	0.38	0.38
Clearance Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	3.0
Vehicle Extension (s)	5.0	5.0			5.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	100	2405			2335		212	301		176	630	416
v/s Ratio Prot		0.36			0.34			c0.14		c0.08		
v/s Ratio Perm	c0.54						0.12				0.04	0.14
v/c Ratio	1.02	0.68			0.63		0.53	0.61		0.74	0.11	0.36
Uniform Delay, d1	21.0	15.3			14.8		30.9	31.5		38.7	18.2	20.1
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	95.5	1.5			1.3		9.3	8.8		14.9	0.4	2.4
Delay (s)	116.5	16.9			16.1		40.2	40.3		53.7	18.6	22.5
Level of Service	F	B			B		D	D		D	B	C
Approach Delay (s)		22.7			16.1			40.3			33.3	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBR2
Lane Configurations									
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0	4.0			4.0
Lane Util. Factor		1.00	0.91		1.00	0.91			1.00
Frpb, ped/bikes		1.00	0.98		1.00	0.95			1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00			1.00
Frt		1.00	0.99		1.00	0.98			0.86
Flt Protected		0.95	1.00		0.95	1.00			1.00
Satd. Flow (prot)		1583	4392		1583	4225			1442
Flt Permitted		0.95	1.00		0.95	1.00			1.00
Satd. Flow (perm)		1583	4392		1583	4225			1442
Volume (vph)	220	232	1537	121	209	972	110	69	146
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	227	239	1585	125	215	1002	113	71	151
RTOR Reduction (vph)	0	0	8	0	0	7	0	0	131
Lane Group Flow (vph)	0	466	1702	0	215	1179	0	0	20
Confl. Peds. (#/hr)	99	154		137	137		99	154	155
Confl. Bikes (#/hr)				6			7	10	2
Turn Type	Prot	Prot			Prot				custom
Protected Phases	1	1	2		8	6			1
Permitted Phases									
Actuated Green, G (s)		14.0	58.0		19.0	80.0			14.0
Effective Green, g (s)		13.0	57.0		18.0	79.0			13.0
Actuated g/C Ratio		0.13	0.57		0.18	0.79			0.13
Clearance Time (s)		3.0	3.0		3.0	3.0			3.0
Vehicle Extension (s)		2.5	5.0		3.0	5.0			2.5
Lane Grp Cap (vph)		206	2503		285	3338			187
v/s Ratio Prot		c0.29	c0.39		c0.14	0.28			0.01
v/s Ratio Perm									
v/c Ratio		2.26	0.68		0.75	0.35			0.10
Uniform Delay, d1		43.5	15.1		38.9	3.1			38.4
Progression Factor		1.15	1.61		1.00	1.00			1.00
Incremental Delay, d2		575.6	0.8		10.8	0.3			0.2
Delay (s)		625.6	25.1		49.7	3.4			38.5
Level of Service		F	C		D	A			D
Approach Delay (s)			153.7			10.5			
Approach LOS			F			B			

Intersection Summary			
HCM Average Control Delay	95.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	0.86	0.86		1.00	0.91			0.95	1.00		0.86	0.86
Frt	1.00	1.00		1.00	1.00			1.00	0.85		0.99	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	961	3014		1118	3208			2235	1000		3005	860
Flt Permitted	0.95	0.71		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	961	2144		1118	3208			2235	1000		3005	860
Volume (vph)	363	1157	24	112	1183	10	0	768	55	0	1003	627
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	412	1315	27	127	1344	11	0	873	62	0	1140	712
RTOR Reduction (vph)	0	2	0	0	1	0	0	0	43	0	7	330
Lane Group Flow (vph)	290	1462	0	127	1354	0	0	873	19	0	1213	302
Turn Type	Prot			Prot					Perm			Over
Protected Phases	7	4		3	8			2			6	7
Permitted Phases									2			
Actuated Green, G (s)	15.9	41.4		14.9	40.4			29.4	29.4		29.4	15.9
Effective Green, g (s)	17.0	42.0		16.0	41.0			30.0	30.0		30.0	17.0
Actuated g/C Ratio	0.17	0.42		0.16	0.41			0.30	0.30		0.30	0.17
Clearance Time (s)	5.1	4.6		5.1	4.6			4.6	4.6		4.6	5.1
Vehicle Extension (s)	3.0	3.0		5.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	163	1048		179	1315			671	300		902	146
v/s Ratio Prot	0.30	0.24		0.11	c0.42			0.39			c0.40	c0.35
v/s Ratio Perm		c0.35							0.02			
v/c Ratio	1.78	1.40		0.71	1.03			1.30	0.06		1.34	2.07
Uniform Delay, d1	41.5	29.0		39.8	29.5			35.0	25.0		35.0	41.5
Progression Factor	1.00	1.00		1.21	0.37			1.00	1.00		1.00	1.00
Incremental Delay, d2	374.2	183.7		11.5	29.6			146.2	0.4		162.6	505.1
Delay (s)	415.7	212.7		59.7	40.5			181.2	25.4		197.6	546.6
Level of Service	F	F		E	D			F	C		F	F
Approach Delay (s)		246.3			42.2			170.9			316.7	
Approach LOS		F			D			F			F	

Intersection Summary			
HCM Average Control Delay	206.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	120.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frt		1.00		1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3187		1118	3202		1118	2235	1000	1118	2121	
Flt Permitted		0.70		0.95	1.00		0.25	1.00	1.00	0.18	1.00	
Satd. Flow (perm)		2253		1118	3202		289	2235	1000	213	2121	
Volume (vph)	170	1091	10	231	975	21	10	725	334	28	411	214
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	173	1113	10	236	995	21	10	740	341	29	419	218
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	235	0	67	0
Lane Group Flow (vph)	0	1295	0	236	1014	0	10	740	106	29	570	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		
Actuated Green, G (s)		41.4		14.9	40.4		29.4	29.4	29.4	29.4	29.4	
Effective Green, g (s)		42.0		16.0	41.0		30.0	30.0	30.0	30.0	30.0	
Actuated g/C Ratio		0.42		0.16	0.41		0.30	0.30	0.30	0.30	0.30	
Clearance Time (s)		4.6		5.1	4.6		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)		3.0		5.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1105		179	1313		87	671	300	64	636	
v/s Ratio Prot		c0.20		c0.21	0.32			c0.33			0.27	
v/s Ratio Perm		c0.29					0.03		0.11	0.14		
v/c Ratio		1.17		1.32	0.77		0.11	1.10	0.35	0.45	0.90	
Uniform Delay, d1		29.0		42.0	25.5		25.4	35.0	27.4	28.4	33.5	
Progression Factor		0.65		0.94	1.52		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		78.5		176.2	4.3		2.7	66.3	3.2	21.4	17.7	
Delay (s)		97.2		215.7	43.0		28.0	101.3	30.6	49.8	51.2	
Level of Service		F		F	D		C	F	C	D	D	
Approach Delay (s)		97.2			75.5			78.6			51.1	
Approach LOS		F			E			E			D	

Intersection Summary			
HCM Average Control Delay	79.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.86	1.00	0.97	0.86	0.97	0.88
Frpb, ped/bikes		1.00	0.94	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)		4047	939	2168	4047	2168	1760
Flt Permitted		1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)		4047	939	2168	4047	2168	1760
Volume (vph)	0	1702	263	385	1097	379	629
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1755	271	397	1131	391	648
RTOR Reduction (vph)	0	0	87	0	0	0	492
Lane Group Flow (vph)	0	1755	184	397	1131	391	156
Confl. Peds. (#/hr)			60	60		1	4
Confl. Bikes (#/hr)			23				4
Turn Type	Prot		pm+ov	Prot			Over
Protected Phases	1	6	4	3	2 3	4	3
Permitted Phases			6				
Actuated Green, G (s)		49.2	74.3	29.8	85.0	25.1	29.8
Effective Green, g (s)		51.2	79.2	28.8	84.0	28.0	28.8
Actuated g/C Ratio		0.43	0.66	0.24	0.70	0.23	0.24
Clearance Time (s)		6.0	6.9	3.0		6.9	3.0
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1727	651	520	2833	506	422
v/s Ratio Prot		c0.43	0.07	c0.18	0.28	c0.18	0.09
v/s Ratio Perm			0.13				
v/c Ratio		1.02	0.28	0.76	0.40	0.77	0.37
Uniform Delay, d1		34.4	8.5	42.4	7.5	43.0	38.0
Progression Factor		0.79	3.85	1.00	1.00	1.00	1.00
Incremental Delay, d2		22.1	0.2	6.6	0.1	7.2	0.5
Delay (s)		49.3	33.0	49.0	7.6	50.2	38.6
Level of Service		D	C	D	A	D	D
Approach Delay (s)		47.1			18.3	43.0	
Approach LOS		D			B	D	

Intersection Summary			
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0				4.0	4.0			4.0	4.0
Lane Util. Factor	0.95	0.95	0.88				1.00	0.91			0.95	1.00
Frt	1.00	1.00	0.85				1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1504	1504	2493				1583	4550			3167	1417
Flt Permitted	0.95	0.95	1.00				0.10	1.00			1.00	1.00
Satd. Flow (perm)	1504	1504	2493				167	4550			3167	1417
Volume (vph)	391	0	481	0	0	0	108	374	0	0	1090	145
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	444	0	547	0	0	0	123	425	0	0	1239	165
RTOR Reduction (vph)	0	0	444	0	0	0	0	0	0	0	0	119
Lane Group Flow (vph)	222	222	103	0	0	0	123	425	0	0	1239	46
Turn Type	Split		custom				pm+pt			Perm		Over
Protected Phases	4	4	7 1		3		5	2			6	4
Permitted Phases							2			6		
Actuated Green, G (s)	16.5	16.5	16.3				43.8	38.8			38.8	16.5
Effective Green, g (s)	17.1	17.1	16.9				45.0	40.0			40.0	17.1
Actuated g/C Ratio	0.19	0.19	0.19				0.50	0.44			0.44	0.19
Clearance Time (s)	4.6	4.6					4.0	5.2			5.2	4.6
Vehicle Extension (s)	3.0	3.0					3.0	3.2			3.4	3.0
Lane Grp Cap (vph)	286	286	468				162	2022			1408	269
v/s Ratio Prot	c0.15	0.15	c0.04				c0.04	0.09			c0.39	0.03
v/s Ratio Perm							0.34					
v/c Ratio	0.78	0.78	0.22				0.76	0.21			0.88	0.17
Uniform Delay, d1	34.6	34.6	31.0				16.8	15.3			22.8	30.5
Progression Factor	0.81	0.81	2.08				1.72	0.90			1.00	1.00
Incremental Delay, d2	18.2	18.2	0.2				14.0	0.2			8.1	1.4
Delay (s)	46.4	46.4	64.8				42.9	14.0			31.0	31.9
Level of Service	D	D	E				D	B			C	C
Approach Delay (s)		56.6			0.0			20.5			31.1	
Approach LOS		E			A			C			C	

Intersection Summary			
HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		0.91	1.00		0.86		0.97	0.91		0.97	0.95	0.88
Frt		1.00	0.85		0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		4550	1417		5620		3072	4492		3072	3167	2493
Flt Permitted		1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		4550	1417		5620		3072	4492		3072	3167	2493
Volume (vph)	0	2033	485	0	2137	326	10	626	58	314	366	219
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2096	500	0	2203	336	10	645	60	324	377	226
RTOR Reduction (vph)	0	0	126	0	30	0	0	2	0	0	0	138
Lane Group Flow (vph)	0	2096	374	0	2509	0	10	703	0	324	377	88
Turn Type			pm+ov				Prot			Prot		Perm
Protected Phases		6	3		2		3	8		7	4	
Permitted Phases			6									4
Actuated Green, G (s)		39.5	45.4		39.5		5.9	26.7		9.0	29.8	29.8
Effective Green, g (s)		41.0	46.9		41.0		5.9	28.0		9.0	31.1	31.1
Actuated g/C Ratio		0.46	0.52		0.46		0.07	0.31		0.10	0.35	0.35
Clearance Time (s)		5.5	4.0		5.5		4.0	5.3		4.0	5.3	5.3
Vehicle Extension (s)		4.9	3.0		5.2		3.0	5.1		3.0	5.1	5.1
Lane Grp Cap (vph)		2073	801		2560		201	1398		307	1094	861
v/s Ratio Prot		c0.46	0.03		0.45		0.00	c0.16		c0.11	c0.12	
v/s Ratio Perm			0.23									0.04
v/c Ratio		1.01	0.47		0.98		0.05	0.50		1.06	0.34	0.10
Uniform Delay, d1		24.5	13.6		24.1		39.4	25.3		40.5	21.9	20.0
Progression Factor		1.00	1.00		0.88		1.00	1.00		1.20	1.20	2.59
Incremental Delay, d2		22.5	0.4		9.0		0.1	1.3		54.6	0.2	0.1
Delay (s)		47.0	14.1		30.1		39.5	26.6		103.2	26.4	51.9
Level of Service		D	B		C		D	C		F	C	D
Approach Delay (s)		40.7			30.1			26.8			59.5	
Approach LOS		D			C			C			E	

Intersection Summary			
HCM Average Control Delay	37.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.86	1.00	0.97	0.91	0.94	0.88
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1118	4047	1000	2168	3212	3152	1760
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1118	4047	1000	2168	3212	3152	1760
Volume (vph)	12	1357	276	277	1190	627	599
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	12	1371	279	280	1202	633	605
RTOR Reduction (vph)	0	0	207	0	0	0	483
Lane Group Flow (vph)	12	1371	72	280	1202	633	122
Confl. Peds. (#/hr)			86	86		1	230
Confl. Bikes (#/hr)			19				3
Turn Type	Prot		Over	Prot			Over
Protected Phases	1	6	8	5	2	8	5
Permitted Phases							
Actuated Green, G (s)	2.6	50.3	28.0	24.1	70.8	28.0	24.1
Effective Green, g (s)	3.6	53.0	30.9	24.1	73.5	30.9	24.1
Actuated g/C Ratio	0.03	0.44	0.26	0.20	0.61	0.26	0.20
Clearance Time (s)	5.0	6.7	6.9	4.0	6.7	6.9	4.0
Vehicle Extension (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0
Lane Grp Cap (vph)	34	1787	258	435	1967	812	353
v/s Ratio Prot	0.01	c0.34	0.07	0.13	c0.37	c0.20	0.07
v/s Ratio Perm							
v/c Ratio	0.35	0.77	0.28	0.64	0.61	0.78	0.34
Uniform Delay, d1	57.1	28.3	35.6	44.0	14.4	41.4	41.2
Progression Factor	0.87	1.49	2.24	0.95	0.78	1.00	1.00
Incremental Delay, d2	3.8	2.0	0.4	2.9	1.3	4.8	0.6
Delay (s)	53.5	44.1	80.2	44.9	12.5	46.2	41.8
Level of Service	D	D	F	D	B	D	D
Approach Delay (s)		50.3			18.6	44.0	
Approach LOS		D			B	D	

Intersection Summary			
HCM Average Control Delay	37.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	
Frpb, ped/bikes	1.00	1.00	0.90	1.00	1.00	0.86	1.00	1.00	0.87	1.00	0.90	
Flpb, ped/bikes	0.99	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1560	3167	1268	1444	3167	1213	3072	4550	1232	3072	3848	
Flt Permitted	0.32	1.00	1.00	0.63	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	527	3167	1268	959	3167	1213	3072	4550	1232	3072	3848	
Volume (vph)	127	177	262	251	481	240	265	518	154	220	425	300
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	192	285	273	523	261	288	563	167	239	462	326
RTOR Reduction (vph)	0	0	7	0	0	167	0	0	118	0	122	0
Lane Group Flow (vph)	138	192	278	273	523	94	288	563	49	239	666	0
Confl. Peds. (#/hr)	137		119	119		137	178		101	101		178
Confl. Bikes (#/hr)			4			5			4			3
Turn Type	pm+pt		pm+ov	Perm		Perm	Prot		Perm	Prot		
Protected Phases	1	6	3		2		3	8		7	4	
Permitted Phases	6		6	2		2			8			
Actuated Green, G (s)	38.8	38.8	46.8	29.8	29.8	29.8	8.0	26.0	26.0	11.2	29.2	
Effective Green, g (s)	40.3	40.3	48.3	31.3	31.3	31.3	8.0	26.5	26.5	11.2	29.7	
Actuated g/C Ratio	0.45	0.45	0.54	0.35	0.35	0.35	0.09	0.29	0.29	0.12	0.33	
Clearance Time (s)	3.5	5.5	4.0	5.5	5.5	5.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	4.0	2.0	4.0	4.0	4.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)	293	1418	737	334	1101	422	273	1340	363	382	1270	
v/s Ratio Prot	c0.03	0.06	0.03		0.17		c0.09	0.12		0.08	c0.17	
v/s Ratio Perm	0.18		0.19	c0.28		0.08			0.04			
v/c Ratio	0.47	0.14	0.38	0.82	0.48	0.22	1.05	0.42	0.14	0.63	0.52	
Uniform Delay, d1	15.8	14.6	12.1	26.7	22.9	20.8	41.0	25.6	23.3	37.4	24.4	
Progression Factor	1.05	1.05	1.05	1.04	1.04	1.49	0.97	1.18	1.83	1.00	1.00	
Incremental Delay, d2	1.2	0.1	0.1	14.9	0.4	0.4	69.4	1.0	0.8	2.3	1.6	
Delay (s)	17.8	15.5	12.9	42.8	24.2	31.4	109.4	31.0	43.5	39.7	26.0	
Level of Service	B	B	B	D	C	C	F	C	D	D	C	
Approach Delay (s)		14.8			30.8			55.2			29.2	
Approach LOS		B			C			E			C	

Intersection Summary			
HCM Average Control Delay	34.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor					1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Frt					1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1583	1417	1583	4550	1417	1583	4550	
Flt Permitted					0.76	1.00	0.23	1.00	1.00	0.43	1.00	
Satd. Flow (perm)					1262	1417	378	4550	1417	715	4550	
Volume (vph)	0	0	0	125	0	173	1	521	95	120	1041	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	136	0	188	1	566	103	130	1132	0
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	28	0	0	0
Lane Group Flow (vph)	0	0	0	0	136	34	1	566	75	130	1132	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)					15.5	15.5	64.5	64.5	64.5	64.5	64.5	
Effective Green, g (s)					16.5	16.5	65.5	65.5	65.5	65.5	65.5	
Actuated g/C Ratio					0.18	0.18	0.73	0.73	0.73	0.73	0.73	
Clearance Time (s)					5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)					231	260	275	3311	1031	520	3311	
v/s Ratio Prot								0.12			c0.25	
v/s Ratio Perm					c0.11	0.02	0.00		0.05	0.18		
v/c Ratio					0.59	0.13	0.00	0.17	0.07	0.25	0.34	
Uniform Delay, d1					33.6	30.8	3.3	3.8	3.5	4.1	4.4	
Progression Factor					1.00	1.00	2.36	1.86	4.50	1.11	1.10	
Incremental Delay, d2					3.8	0.2	0.0	0.1	0.1	1.0	0.3	
Delay (s)					37.4	31.0	7.9	7.2	16.0	5.5	5.2	
Level of Service					D	C	A	A	B	A	A	
Approach Delay (s)		0.0			33.7			8.6			5.2	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95	0.95	1.00	0.91		0.97	0.91	
Frt		0.96			0.96	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97			0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2961			1501	1346	1583	4497		3072	4535	
Flt Permitted		0.80			0.90	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		2424			1366	1346	1583	4497		3072	4535	
Volume (vph)	84	31	42	10	16	69	11	475	40	132	989	22
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	86	32	43	10	16	70	11	485	41	135	1009	22
RTOR Reduction (vph)	0	36	0	0	8	45	0	6	0	0	1	0
Lane Group Flow (vph)	0	125	0	0	27	16	11	520	0	135	1030	0
Turn Type	Perm			Perm		pm+ov	Prot			Prot		
Protected Phases		8			4	5	1	6		5	2	
Permitted Phases	8			4		4						
Actuated Green, G (s)		12.6			12.6	21.5	1.4	54.3		8.9	61.8	
Effective Green, g (s)		14.1			14.1	23.0	1.4	55.0		8.9	62.5	
Actuated g/C Ratio		0.16			0.16	0.26	0.02	0.61		0.10	0.69	
Clearance Time (s)		5.5			5.5	4.0	4.0	4.7		4.0	4.7	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		380			214	404	25	2748		304	3149	
v/s Ratio Prot						0.00	0.01	0.12		c0.04	c0.23	
v/s Ratio Perm		c0.05			0.02	0.01						
v/c Ratio		0.33			0.13	0.04	0.44	0.19		0.44	0.33	
Uniform Delay, d1		33.7			32.7	25.2	43.9	7.7		38.2	5.4	
Progression Factor		1.00			1.00	1.00	0.80	1.85		0.85	1.00	
Incremental Delay, d2		0.5			0.3	0.0	11.7	0.2		1.0	0.3	
Delay (s)		34.2			32.9	25.2	46.9	14.3		33.6	5.7	
Level of Service		C			C	C	D	B		C	A	
Approach Delay (s)		34.2			28.0			15.0			8.9	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97		1.00	1.00		1.00	0.97	0.91		1.00	0.91	
Frt	1.00		0.85	1.00		0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3072		1417	1583		1417	3072	4501		1583	4540	
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3072		1417	1583		1417	3072	4501		1583	4540	
Volume (vph)	128	0	179	22	0	50	19	378	29	59	1003	15
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	141	0	197	24	0	55	21	415	32	65	1102	16
RTOR Reduction (vph)	0	0	154	0	0	42	0	7	0	0	1	0
Lane Group Flow (vph)	141	0	43	24	0	13	21	440	0	65	1117	0
Turn Type	Prot		custom	Prot		custom	Prot			Prot		
Protected Phases	3		3 5	4		1 4	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	13.2		19.4	9.9		22.4	6.2	41.4		7.6	42.8	
Effective Green, g (s)	14.1		19.5	10.8		21.6	5.4	42.3		6.8	43.7	
Actuated g/C Ratio	0.16		0.22	0.12		0.24	0.06	0.47		0.08	0.49	
Clearance Time (s)	4.9			4.9			3.2	4.9		3.2	4.9	
Vehicle Extension (s)	3.0			3.0			3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	481		307	190		340	184	2115		120	2204	
v/s Ratio Prot	c0.05		0.03	c0.02		0.01	0.01	0.10		c0.04	c0.25	
v/s Ratio Perm												
v/c Ratio	0.29		0.14	0.13		0.04	0.11	0.21		0.54	0.51	
Uniform Delay, d1	33.5		28.5	35.4		26.2	40.0	14.0		40.1	15.8	
Progression Factor	1.00		1.00	1.00		1.00	1.45	0.29		0.77	1.10	
Incremental Delay, d2	0.3		0.2	0.3		0.0	0.2	0.2		4.8	0.8	
Delay (s)	33.9		28.7	35.7		26.3	58.3	4.2		35.6	18.2	
Level of Service	C		C	D		C	E	A		D	B	
Approach Delay (s)		30.9			29.1			6.6			19.2	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.91		0.97	0.88
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	3072	4550	4521		3072	2493
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	3072	4550	4521		3072	2493
Volume (vph)	309	1536	1390	62	320	848
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	336	1670	1511	67	348	922
RTOR Reduction (vph)	0	0	5	0	0	378
Lane Group Flow (vph)	336	1670	1573	0	348	544
Turn Type	Prot					Prot
Protected Phases	5	2 5	6		4	4
Permitted Phases						
Actuated Green, G (s)	13.0	53.1	35.1		26.4	26.4
Effective Green, g (s)	14.0	54.6	36.6		27.4	27.4
Actuated g/C Ratio	0.16	0.61	0.41		0.30	0.30
Clearance Time (s)	5.0		5.5		5.0	5.0
Vehicle Extension (s)	2.0		3.0		3.0	3.0
Lane Grp Cap (vph)	478	2760	1839		935	759
v/s Ratio Prot	c0.11	0.37	c0.35		0.11	c0.22
v/s Ratio Perm						
v/c Ratio	0.70	0.61	0.86		0.37	0.72
Uniform Delay, d1	36.0	11.0	24.3		24.6	27.9
Progression Factor	1.00	1.00	1.00		1.08	1.65
Incremental Delay, d2	8.4	1.0	5.3		0.2	2.9
Delay (s)	44.4	12.0	29.6		26.8	48.9
Level of Service	D	B	C		C	D
Approach Delay (s)		17.4	29.6		42.8	
Approach LOS		B	C		D	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3212	1000	2168	3212	2168	910
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3212	1000	2168	3212	2168	910
Volume (vph)	1447	130	110	1734	428	210
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1492	134	113	1788	441	216
RTOR Reduction (vph)	0	81	0	0	0	162
Lane Group Flow (vph)	1492	53	113	1788	441	54
Confl. Peds. (#/hr)		145	145		56	
Confl. Bikes (#/hr)		19				
Turn Type		Over	Prot			Perm
Protected Phases	6	4	5	2	4	
Permitted Phases						4
Actuated Green, G (s)	67.4	28.1	9.4	80.8	28.1	28.1
Effective Green, g (s)	68.6	30.0	9.4	82.0	30.0	30.0
Actuated g/C Ratio	0.57	0.25	0.08	0.68	0.25	0.25
Clearance Time (s)	5.2	5.9	4.0	5.2	5.9	5.9
Vehicle Extension (s)	3.7	3.8	1.0	3.5	3.8	3.8
Lane Grp Cap (vph)	1836	250	170	2195	542	228
v/s Ratio Prot	0.46	0.05	0.05	c0.56	c0.20	
v/s Ratio Perm						0.06
v/c Ratio	0.81	0.21	0.66	0.81	0.81	0.24
Uniform Delay, d1	20.6	35.6	53.8	13.6	42.4	35.9
Progression Factor	1.41	0.84	0.97	0.76	1.00	1.00
Incremental Delay, d2	0.4	0.2	5.8	2.7	12.6	2.4
Delay (s)	29.4	30.0	57.7	13.1	55.0	38.3
Level of Service	C	C	E	B	D	D
Approach Delay (s)	29.5			15.7	49.5	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.88	0.95	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	2493	3167	1417	1583	4550
Flt Permitted	0.95	1.00	1.00	1.00	0.58	1.00
Satd. Flow (perm)	3072	2493	3167	1417	959	4550
Volume (vph)	513	358	185	119	104	212
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	564	393	203	131	114	233
RTOR Reduction (vph)	0	272	0	22	0	0
Lane Group Flow (vph)	564	121	203	109	114	233
Turn Type		Perm		pm+ov	pm+pt	
Protected Phases	4		2	4	1	6
Permitted Phases		4		2	6	
Actuated Green, G (s)	27.2	27.2	45.8	73.0	52.8	52.8
Effective Green, g (s)	27.7	27.7	47.3	75.0	54.3	54.3
Actuated g/C Ratio	0.31	0.31	0.53	0.83	0.60	0.60
Clearance Time (s)	4.5	4.5	5.5	4.5	3.0	5.5
Vehicle Extension (s)	3.0	3.0	5.0	3.0	3.0	5.0
Lane Grp Cap (vph)	945	767	1664	1244	599	2745
v/s Ratio Prot	c0.18		0.06	0.03	c0.01	0.05
v/s Ratio Perm		0.05		0.05	c0.11	
v/c Ratio	0.60	0.16	0.12	0.09	0.19	0.08
Uniform Delay, d1	26.4	22.7	10.8	1.3	7.7	7.5
Progression Factor	1.11	3.25	1.82	0.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	0.1	0.0	0.2	0.1
Delay (s)	30.0	73.7	19.8	0.0	7.9	7.5
Level of Service	C	E	B	A	A	A
Approach Delay (s)	48.0		12.1			7.6
Approach LOS	D		B			A

Intersection Summary			
HCM Average Control Delay	32.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.91	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	4550	4550	1417	3072	2493
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3072	4550	4550	1417	3072	2493
Volume (vph)	154	1727	1966	37	133	619
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	157	1762	2006	38	136	632
RTOR Reduction (vph)	0	0	0	20	0	0
Lane Group Flow (vph)	157	1762	2006	18	136	632
Turn Type	Prot			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	9.8	54.3	40.5	40.5	25.8	25.8
Effective Green, g (s)	9.8	55.5	41.7	41.7	26.5	26.5
Actuated g/C Ratio	0.11	0.62	0.46	0.46	0.29	0.29
Clearance Time (s)	4.0	5.2	5.2	5.2	4.7	4.7
Vehicle Extension (s)	3.0	4.8	4.6	4.6	3.0	3.0
Lane Grp Cap (vph)	335	2806	2108	657	905	734
v/s Ratio Prot	0.05	c0.39	c0.44		0.04	
v/s Ratio Perm				0.01		c0.25
v/c Ratio	0.47	0.63	0.95	0.03	0.15	0.86
Uniform Delay, d1	37.7	10.8	23.2	13.1	23.4	30.0
Progression Factor	0.64	2.08	1.00	1.00	0.70	0.62
Incremental Delay, d2	0.5	0.5	11.1	0.1	0.1	9.3
Delay (s)	24.8	22.9	34.3	13.2	16.5	28.0
Level of Service	C	C	C	B	B	C
Approach Delay (s)		23.1	33.9		26.0	
Approach LOS		C	C		C	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4550	1417	1583	4530		1583	3092		1583	3126	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.18	1.00		0.31	1.00	
Satd. Flow (perm)	1583	4550	1417	1583	4530		306	3092		510	3126	
Volume (vph)	107	1691	343	93	1426	44	114	597	111	86	464	44
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	110	1743	354	96	1470	45	118	615	114	89	478	45
RTOR Reduction (vph)	0	0	166	0	3	0	0	13	0	0	6	0
Lane Group Flow (vph)	110	1743	188	96	1512	0	118	716	0	89	517	0
Turn Type	Prot		Perm	Prot			pm+pt			Perm		
Protected Phases	1	6		5	2		3	8			4	
Permitted Phases			6				8			4		
Actuated Green, G (s)	11.9	57.5	57.5	11.2	56.8		37.3	37.3		23.7	23.7	
Effective Green, g (s)	11.9	58.5	58.5	11.2	57.8		38.3	38.3		24.7	24.7	
Actuated g/C Ratio	0.10	0.49	0.49	0.09	0.48		0.32	0.32		0.21	0.21	
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0		3.5	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	4.0	4.0	2.0	4.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	157	2218	691	148	2182		200	987		105	643	
v/s Ratio Prot	c0.07	c0.38		0.06	0.33		0.05	c0.23			0.17	
v/s Ratio Perm			0.13				0.14			c0.17		
v/c Ratio	0.70	0.79	0.27	0.65	0.69		0.59	0.73		0.85	0.80	
Uniform Delay, d1	52.3	25.5	18.2	52.5	24.2		31.5	36.2		45.8	45.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.35	1.33		1.00	1.00	
Incremental Delay, d2	10.9	2.9	1.0	7.1	1.8		2.4	1.5		43.4	7.2	
Delay (s)	63.2	28.4	19.2	59.6	26.0		44.9	49.7		89.3	52.5	
Level of Service	E	C	B	E	C		D	D		F	D	
Approach Delay (s)		28.7			28.0			49.1			57.9	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM Average Control Delay	35.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3212	1000	2168	3212	1000	2168	2235	1000	2168	2235	1000
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	2168	3212	1000	2168	3212	1000	2168	2235	1000	2168	2235	1000
Volume (vph)	143	1223	133	133	1648	392	98	521	82	261	1033	53
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	147	1261	137	137	1699	404	101	537	85	269	1065	55
RTOR Reduction (vph)	0	0	96	0	0	53	0	0	60	0	0	32
Lane Group Flow (vph)	147	1261	41	137	1699	351	101	537	25	269	1065	23
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	7	3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	7.0	31.6	31.6	11.0	35.6	59.7	8.8	33.4	33.4	24.1	48.7	48.7
Effective Green, g (s)	7.0	33.1	33.1	11.0	37.1	61.2	8.8	35.8	35.8	24.1	51.1	51.1
Actuated g/C Ratio	0.06	0.28	0.28	0.09	0.31	0.51	0.07	0.30	0.30	0.20	0.43	0.43
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5	4.0	4.0	6.4	6.4	4.0	6.4	6.4
Vehicle Extension (s)	2.0	4.5	4.5	2.0	5.2	2.0	2.0	4.7	4.7	2.0	4.7	4.7
Lane Grp Cap (vph)	126	886	276	199	993	510	159	667	298	435	952	426
v/s Ratio Prot	0.07	c0.39		0.06	c0.53	0.14	0.05	c0.24		0.12	c0.48	
v/s Ratio Perm			0.04			0.21			0.03			0.02
v/c Ratio	1.17	1.42	0.15	0.69	1.71	0.69	0.64	0.81	0.09	0.62	1.12	0.05
Uniform Delay, d1	56.5	43.5	32.8	52.8	41.5	22.2	54.0	38.9	30.3	43.8	34.5	20.3
Progression Factor	1.01	0.32	0.31	0.89	0.85	0.74	1.00	1.00	1.00	0.73	0.63	0.41
Incremental Delay, d2	83.1	191.1	0.1	4.4	322.4	1.7	6.0	7.9	0.2	1.7	66.6	0.1
Delay (s)	140.2	205.0	10.2	51.4	357.4	18.3	60.0	46.7	30.5	33.8	88.3	8.5
Level of Service	F	F	B	D	F	B	E	D	C	C	F	A
Approach Delay (s)		181.6			277.5			46.7			74.6	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM Average Control Delay	176.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	119.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	1583	5683		1583	3167	1417	1583	3167	1417
Flt Permitted	0.10	1.00	1.00	0.10	1.00		0.25	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	164	4550	1417	168	5683		421	3167	1417	569	3167	1417
Volume (vph)	139	1581	94	157	2355	146	43	399	35	314	816	205
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	143	1630	97	162	2428	151	44	411	36	324	841	211
RTOR Reduction (vph)	0	0	40	0	10	0	0	0	12	0	0	0
Lane Group Flow (vph)	143	1630	57	162	2569	0	44	411	24	324	841	211
Turn Type	pm+pt		Perm	pm+pt			Perm		pm+ov	pm+pt		pm+ov
Protected Phases	1	6		5	2			8	5	7	4	1
Permitted Phases	6		6	2			8	8	8	4		4
Actuated Green, G (s)	46.1	40.1	40.1	44.1	39.1		21.9	21.9	26.9	30.9	30.9	36.9
Effective Green, g (s)	46.6	40.6	40.6	44.6	39.6		23.4	23.4	28.4	32.4	32.4	38.4
Actuated g/C Ratio	0.52	0.45	0.45	0.50	0.44		0.26	0.26	0.32	0.36	0.36	0.43
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5		5.5	5.5	4.0	4.0	5.5	4.0
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		5.0	5.0	3.0	3.0	5.0	3.0
Lane Grp Cap (vph)	180	2053	639	162	2501		109	823	510	261	1140	668
v/s Ratio Prot	0.05	0.36		c0.06	c0.45			0.13	0.00	c0.07	0.27	0.02
v/s Ratio Perm	0.36		0.04	0.44			0.10		0.01	c0.38		0.13
v/c Ratio	0.79	0.79	0.09	1.00	1.03		0.40	0.50	0.05	1.24	0.74	0.32
Uniform Delay, d1	18.7	21.1	14.1	17.5	25.2		27.5	28.3	21.4	28.9	25.1	17.1
Progression Factor	2.30	0.59	0.66	2.10	1.57		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	0.3	0.0	46.0	19.5		5.0	1.0	0.0	136.8	3.1	0.3
Delay (s)	45.3	12.9	9.3	82.9	59.0		32.6	29.3	21.4	165.6	28.2	17.4
Level of Service	D	B	A	F	E		C	C	C	F	C	B
Approach Delay (s)		15.2			60.4			29.0			58.9	
Approach LOS		B			E			C			E	

Intersection Summary			
HCM Average Control Delay	44.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85		1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.97	1.00		0.98	
Satd. Flow (prot)	1583	3087		1583	3158		1504	1540	1417		1630	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.97	1.00		0.98	
Satd. Flow (perm)	1583	3087		1583	3158		1504	1540	1417		1630	
Volume (vph)	10	950	193	178	1079	21	277	81	489	27	42	2
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	10	990	201	185	1124	22	289	84	509	28	44	2
RTOR Reduction (vph)	0	14	0	0	1	0	0	0	251	0	0	0
Lane Group Flow (vph)	10	1177	0	185	1145	0	182	191	258	0	74	0
Turn Type	Prot			Prot			Split		pm+ov	Split		
Protected Phases	1	6		5	2		3	3	5	4	4	
Permitted Phases									3			
Actuated Green, G (s)	1.5	54.9		17.4	70.8		10.0	10.0	27.4		20.0	
Effective Green, g (s)	0.5	55.7		16.4	71.6		10.9	10.9	27.3		21.0	
Actuated g/C Ratio	0.00	0.46		0.14	0.60		0.09	0.09	0.23		0.18	
Clearance Time (s)	3.0	4.8		3.0	4.8		4.9	4.9	3.0		5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	7	1433		216	1884		137	140	370		285	
v/s Ratio Prot	0.01	c0.38		c0.12	0.36		0.12	c0.12	0.10		c0.05	
v/s Ratio Perm									0.09			
v/c Ratio	1.43	0.82		0.86	0.61		1.33	1.36	0.70		0.26	
Uniform Delay, d1	59.8	27.8		50.6	15.3		54.5	54.5	42.6		42.8	
Progression Factor	1.17	0.75		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	404.0	2.9		26.7	1.5		189.3	202.8	5.6		0.5	
Delay (s)	474.1	23.8		77.4	16.8		243.9	257.4	48.2		43.3	
Level of Service	F	C		E	B		F	F	D		D	
Approach Delay (s)		27.5			25.2			133.9			43.3	
Approach LOS		C			C			F			D	

Intersection Summary			
HCM Average Control Delay	53.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.92		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1504	1511	1417	1583	1537		1583	1641		1583	1667	1417
Flt Permitted	0.72	0.70	1.00	0.95	1.00		0.43	1.00		0.48	1.00	1.00
Satd. Flow (perm)	1145	1106	1417	1583	1537		709	1641		802	1667	1417
Volume (vph)	373	10	172	20	24	26	64	341	39	27	454	359
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	389	10	179	21	25	27	67	355	41	28	473	374
RTOR Reduction (vph)	0	0	153	0	25	0	0	4	0	0	0	144
Lane Group Flow (vph)	195	204	26	21	27	0	67	392	0	28	473	230
Turn Type	Perm		Perm	Split			Perm			Perm		Perm
Protected Phases		4		3	3			2			2	
Permitted Phases	4		4				2			2		2
Actuated Green, G (s)	10.0	10.0	10.0	4.8	4.8		44.8	44.8		44.8	44.8	44.8
Effective Green, g (s)	11.0	11.0	11.0	5.8	5.8		46.2	46.2		46.2	46.2	46.2
Actuated g/C Ratio	0.15	0.15	0.15	0.08	0.08		0.62	0.62		0.62	0.62	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.4	5.4		5.4	5.4	5.4
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	168	162	208	122	119		437	1011		494	1027	873
v/s Ratio Prot				0.01	c0.02			0.24			c0.28	
v/s Ratio Perm	0.17	c0.18	0.02				0.09			0.03		0.16
v/c Ratio	1.16	1.26	0.13	0.17	0.23		0.15	0.39		0.06	0.46	0.26
Uniform Delay, d1	32.0	32.0	27.8	32.4	32.5		6.1	7.3		5.7	7.7	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	119.3	156.8	0.3	0.7	1.0		0.7	1.1		0.2	1.5	0.7
Delay (s)	151.3	188.8	28.1	33.0	33.5		6.9	8.4		5.9	9.2	7.3
Level of Service	F	F	C	C	C		A	A		A	A	A
Approach Delay (s)		126.4			33.3			8.2			8.3	
Approach LOS		F			C			A			A	

Intersection Summary			
HCM Average Control Delay	43.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	SEL2	SEL	SET	SER
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)			4.0	4.0		4.0				4.0	4.0	
Lane Util. Factor			1.00	1.00		0.95				1.00	0.95	
Frt			1.00	0.85		0.98				1.00	0.98	
Flt Protected			0.99	1.00		0.98				0.95	1.00	
Satd. Flow (prot)			1164	1000		2146				1118	2196	
Flt Permitted			0.76	1.00		0.59				0.54	1.00	
Satd. Flow (perm)			892	1000		1303				636	2196	
Volume (vph)	11	85	362	48	306	280	38	40	11	87	360	48
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	11	89	377	50	319	292	40	42	11	91	375	50
RTOR Reduction (vph)	0	0	0	23	0	6	0	0	0	0	14	0
Lane Group Flow (vph)	0	0	477	27	0	687	0	0	0	102	411	0
Turn Type		Perm		Perm	Perm				Perm	Perm		
Protected Phases			6			2					4	
Permitted Phases		6		6	2				4	4		
Actuated Green, G (s)			38.0	38.0		38.0				26.0	26.0	
Effective Green, g (s)			40.0	40.0		40.0				27.0	27.0	
Actuated g/C Ratio			0.53	0.53		0.53				0.36	0.36	
Clearance Time (s)			6.0	6.0		6.0				5.0	5.0	
Vehicle Extension (s)			3.0	3.0		3.0				3.0	3.0	
Lane Grp Cap (vph)			476	533		695				229	791	
v/s Ratio Prot											0.19	
v/s Ratio Perm			c0.54	0.03		0.53				0.16		
v/c Ratio			1.00	0.05		1.29dl				0.45	0.52	
Uniform Delay, d1			17.5	8.4		17.3				18.3	18.9	
Progression Factor			0.99	1.18		1.00				1.00	1.00	
Incremental Delay, d2			40.7	0.2		31.4				6.2	2.4	
Delay (s)			58.1	10.1		48.7				24.5	21.3	
Level of Service			E	B		D				C	C	
Approach Delay (s)			53.6			48.7					21.9	
Approach LOS			D			D					C	

Intersection Summary			
HCM Average Control Delay	37.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	118.7%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	NWL	NWT	NWR	NWR2
Lane Configurations				
Ideal Flow (vphpl)	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	
Satd. Flow (prot)	1118	1176	1000	
Flt Permitted	0.45	1.00	1.00	
Satd. Flow (perm)	531	1176	1000	
Volume (vph)	44	225	80	205
Peak-hour factor, PHF	0.96	0.96	0.96	0.96
Adj. Flow (vph)	46	234	83	214
RTOR Reduction (vph)	0	0	124	0
Lane Group Flow (vph)	46	234	173	0
Turn Type	Perm		Perm	
Protected Phases		8		
Permitted Phases	8		8	
Actuated Green, G (s)	26.0	26.0	26.0	
Effective Green, g (s)	27.0	27.0	27.0	
Actuated g/C Ratio	0.36	0.36	0.36	
Clearance Time (s)	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	
Lane Grp Cap (vph)	191	423	360	
v/s Ratio Prot		c0.20		
v/s Ratio Perm	0.09		0.17	
v/c Ratio	0.24	0.55	0.48	
Uniform Delay, d1	16.8	19.2	18.6	
Progression Factor	1.03	1.06	1.30	
Incremental Delay, d2	0.3	0.5	0.4	
Delay (s)	17.6	20.7	24.6	
Level of Service	B	C	C	
Approach Delay (s)		22.5		
Approach LOS		C		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		1.00	0.86			1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.98			0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	1.00
Satd. Flow (prot)	2168	4032		1118	3977			1101		1118	1176	1000
Flt Permitted	0.95	1.00		0.09	1.00			0.50		0.43	1.00	1.00
Satd. Flow (perm)	2168	4032		102	3977			557		504	1176	1000
Volume (vph)	175	1788	47	79	1806	236	108	121	137	208	322	262
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	184	1882	49	83	1901	248	114	127	144	219	339	276
RTOR Reduction (vph)	0	2	0	0	15	0	0	11	0	0	0	2
Lane Group Flow (vph)	184	1929	0	83	2134	0	0	374	0	219	339	274
Turn Type	Prot			Perm			Perm			Perm		pm+ov
Protected Phases	5	2			6			4			4	5
Permitted Phases				6			4			4		4
Actuated Green, G (s)	15.1	92.0		72.9	72.9			49.0		49.0	49.0	64.1
Effective Green, g (s)	15.1	92.0		72.9	72.9			50.0		50.0	50.0	65.1
Actuated g/C Ratio	0.10	0.61		0.49	0.49			0.33		0.33	0.33	0.43
Clearance Time (s)	4.0	4.0		4.0	4.0			5.0		5.0	5.0	4.0
Vehicle Extension (s)	1.5	4.0		4.0	4.0			3.0		3.0	3.0	1.5
Lane Grp Cap (vph)	218	2473		50	1933			186		168	392	461
v/s Ratio Prot	0.08	c0.48			0.54						0.29	0.06
v/s Ratio Perm				c0.82				c0.67		0.43		0.21
v/c Ratio	0.84	0.78		1.66	1.10			2.01		1.30	0.86	0.59
Uniform Delay, d1	66.3	21.5		38.5	38.5			50.0		50.0	46.8	32.4
Progression Factor	1.31	0.31		1.00	1.00			1.00		1.01	1.01	1.02
Incremental Delay, d2	2.8	0.2		369.7	55.1			472.5		166.2	14.4	1.1
Delay (s)	89.4	7.0		408.3	93.6			522.5		216.8	61.6	34.2
Level of Service	F	A		F	F			F		F	E	C
Approach Delay (s)		14.2			105.3			522.5			93.3	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	97.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.71		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	128.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.96		1.00	0.98		1.00	1.00	0.55	1.00	1.00	0.79
Flpb, ped/bikes	0.94	1.00		0.96	1.00		0.92	1.00	1.00	0.70	1.00	1.00
Frt	1.00	0.97		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1493	1564		1523	1603		1463	3167	776	1101	3167	1122
Flt Permitted	0.53	1.00		0.42	1.00		0.35	1.00	1.00	0.49	1.00	1.00
Satd. Flow (perm)	836	1564		669	1603		538	3167	776	571	3167	1122
Volume (vph)	48	234	53	154	318	56	68	363	169	10	553	200
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	50	244	55	160	331	58	71	378	176	10	576	208
RTOR Reduction (vph)	0	11	0	0	5	0	0	0	55	0	0	130
Lane Group Flow (vph)	50	288	0	160	384	0	71	378	121	10	576	78
Confl. Peds. (#/hr)	117		216	216		117	196		419	419		196
Confl. Bikes (#/hr)			5			6			8			20
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		6		5	2			8	5		4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	27.6	27.6		37.6	37.6		27.0	27.0	33.5	27.0	27.0	27.0
Effective Green, g (s)	29.0	29.0		39.0	39.0		28.0	28.0	34.0	28.0	28.0	28.0
Actuated g/C Ratio	0.39	0.39		0.52	0.52		0.37	0.37	0.45	0.37	0.37	0.37
Clearance Time (s)	5.4	5.4		3.5	5.4		5.0	5.0	3.5	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	323	605		416	834		201	1182	393	213	1182	419
v/s Ratio Prot		0.18		0.03	c0.24			0.12	0.02		c0.18	
v/s Ratio Perm	0.06			0.17			0.13		0.13	0.02		0.07
v/c Ratio	0.15	0.48		0.38	0.46		0.35	0.32	0.31	0.05	0.49	0.19
Uniform Delay, d1	15.0	17.3		10.3	11.4		17.0	16.7	13.0	15.0	18.0	15.8
Progression Factor	0.84	0.88		1.00	1.00		0.79	0.74	1.41	1.00	1.00	1.00
Incremental Delay, d2	1.0	2.6		0.6	1.8		4.3	0.6	0.4	0.4	1.4	1.0
Delay (s)	13.6	17.8		10.9	13.2		17.7	13.1	18.7	15.4	19.4	16.8
Level of Service	B	B		B	B		B	B	B	B	B	B
Approach Delay (s)		17.2			12.5			15.2			18.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes		1.00	1.00		0.95		1.00	0.93			1.00	0.30
Flpb, ped/bikes		0.96	1.00		0.93		0.82	1.00			0.99	1.00
Frt		1.00	0.85		0.98		1.00	0.99			1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1580	1417		1438		1295	2907			3117	420
Flt Permitted		0.84	1.00		0.92		0.27	1.00			0.90	1.00
Satd. Flow (perm)		1340	1417		1331		363	2907			2806	420
Volume (vph)	53	146	91	67	295	56	142	539	58	40	739	61
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	55	151	94	69	304	58	146	556	60	41	762	63
RTOR Reduction (vph)	0	0	94	0	1	0	0	3	0	0	0	5
Lane Group Flow (vph)	0	206	0	0	430	0	146	613	0	0	803	58
Confl. Peds. (#/hr)	570		715	715		570	814		795	795		814
Confl. Bikes (#/hr)			9			12			43			28
Turn Type	Perm		NA	Perm			Perm			Perm		Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)		30.5	0.0		30.5		34.1	34.1			34.1	34.1
Effective Green, g (s)		32.0	0.0		32.0		35.0	35.0			35.0	35.0
Actuated g/C Ratio		0.43	0.00		0.43		0.47	0.47			0.47	0.47
Clearance Time (s)		5.5			5.5		4.9	4.9			4.9	4.9
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		572	0		568		169	1357			1309	196
v/s Ratio Prot								0.21				
v/s Ratio Perm		0.15			c0.32		c0.40				0.29	0.14
v/c Ratio		0.36	0.00		0.76		0.86	0.45			0.61	0.30
Uniform Delay, d1		14.6	37.5		18.2		17.9	13.5			14.9	12.4
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.90	2.04
Incremental Delay, d2		1.8	0.0		9.1		40.6	1.1			2.0	3.5
Delay (s)		16.3	37.5		27.4		58.5	14.6			30.4	28.8
Level of Service		B	D		C		E	B			C	C
Approach Delay (s)		23.0			27.4			23.0			30.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95			0.95			0.95	1.00		0.95	
Frpb, ped/bikes		0.91			0.95			1.00	0.54		0.98	
Flpb, ped/bikes		0.97			0.96			1.00	1.00		1.00	
Frt		0.96			0.99			1.00	0.85		0.99	
Flt Protected		1.00			0.99			1.00	1.00		1.00	
Satd. Flow (prot)		1880			1994			2235	540		2163	
Flt Permitted		0.90			0.84			1.00	1.00		0.95	
Satd. Flow (perm)		1701			1688			2235	540		2057	
Volume (vph)	22	142	70	58	226	30	0	806	223	5	769	43
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	22	145	71	59	231	31	0	822	228	5	785	44
RTOR Reduction (vph)	0	5	0	0	4	0	0	0	95	0	3	0
Lane Group Flow (vph)	0	233	0	0	317	0	0	822	133	0	831	0
Confl. Peds. (#/hr)	238		195	195		238	518		548	548		518
Confl. Bikes (#/hr)			8			5			23			18
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2		2	2		
Actuated Green, G (s)		61.5			61.5			78.0	78.0		78.0	
Effective Green, g (s)		63.0			63.0			79.0	79.0		79.0	
Actuated g/C Ratio		0.42			0.42			0.53	0.53		0.53	
Clearance Time (s)		5.5			5.5			5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		714			709			1177	284		1083	
v/s Ratio Prot								0.37				
v/s Ratio Perm		0.14			c0.19				0.25		c0.40	
v/c Ratio		0.33			0.45			0.70	0.47		0.77	
Uniform Delay, d1		29.2			31.1			26.6	22.3		28.2	
Progression Factor		0.97			1.00			1.53	4.82		1.00	
Incremental Delay, d2		1.2			1.0			1.5	2.4		5.2	
Delay (s)		29.4			32.0			42.2	109.9		33.4	
Level of Service		C			C			D	F		C	
Approach Delay (s)		29.4			32.0			56.9			33.4	
Approach LOS		C			C			E			C	

Intersection Summary			
HCM Average Control Delay	43.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		0.97	0.86		1.00	0.91		1.00	0.86	0.86
Frpb, ped/bikes	1.00	0.96		1.00	0.98		1.00	0.94		1.00	0.96	0.73
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.99	1.00		0.92	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	0.98	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	2168	3847		2168	3947		1104	2927		1026	2854	624
Flt Permitted	0.95	1.00		0.95	1.00		0.21	1.00		0.24	1.00	1.00
Satd. Flow (perm)	2168	3847		2168	3947		244	2927		257	2854	624
Volume (vph)	125	1877	207	140	1841	100	179	806	166	100	637	277
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	130	1955	216	146	1918	104	186	840	173	104	664	289
RTOR Reduction (vph)	0	13	0	0	4	0	0	21	0	0	12	14
Lane Group Flow (vph)	130	2158	0	146	2018	0	186	992	0	104	750	177
Confl. Peds. (#/hr)	260		298	298		260	247		442	442		247
Confl. Bikes (#/hr)			4			3			8			8
Turn Type	Prot			Prot			pm+pt			Perm		pm+ov
Protected Phases	5	2		1	6		3	8			4	5
Permitted Phases							8			4		4
Actuated Green, G (s)	8.0	66.5		8.0	66.5		60.1	60.1		47.1	47.1	55.1
Effective Green, g (s)	8.0	68.0		8.0	68.0		62.0	62.0		49.0	49.0	57.0
Actuated g/C Ratio	0.05	0.45		0.05	0.45		0.41	0.41		0.33	0.33	0.38
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.9		5.9	5.9	4.0
Vehicle Extension (s)	2.0	4.0		2.0	4.0		3.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	116	1744		116	1789		152	1210		84	932	254
v/s Ratio Prot	0.06	c0.56		0.07	c0.51		c0.07	0.34			0.26	0.04
v/s Ratio Perm							c0.43			0.40		0.25
v/c Ratio	1.12	1.24		1.26	1.13		1.22	0.82		1.24	0.80	0.70
Uniform Delay, d1	71.0	41.0		71.0	41.0		40.5	39.0		50.5	46.1	39.2
Progression Factor	1.22	0.66		0.93	0.88		1.00	1.00		1.46	1.50	1.63
Incremental Delay, d2	93.1	109.4		122.8	58.3		145.5	4.2		164.3	3.8	5.2
Delay (s)	180.0	136.3		189.1	94.2		186.0	43.3		238.2	72.9	69.0
Level of Service	F	F		F	F		F	D		F	E	E
Approach Delay (s)		138.7			100.6			65.4			88.4	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	105.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.94			0.98		1.00	0.98		1.00	0.97	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1099			1122		1118	2192		1118	2179	
Flt Permitted		0.85			0.57		0.20	1.00		0.15	1.00	
Satd. Flow (perm)		943			661		232	2192		181	2179	
Volume (vph)	65	142	153	296	159	80	60	991	146	111	679	136
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	76	165	178	344	185	93	70	1152	170	129	790	158
RTOR Reduction (vph)	0	44	0	0	11	0	0	19	0	0	28	0
Lane Group Flow (vph)	0	375	0	0	611	0	70	1303	0	129	920	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		25.0			25.0		25.6	25.6		25.6	25.6	
Effective Green, g (s)		26.0			26.0		26.0	26.0		26.0	26.0	
Actuated g/C Ratio		0.43			0.43		0.43	0.43		0.43	0.43	
Clearance Time (s)		5.0			5.0		4.4	4.4		4.4	4.4	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		409			286		101	950		78	944	
v/s Ratio Prot								0.59			0.42	
v/s Ratio Perm		0.40			c0.92		0.30			c0.71		
v/c Ratio		0.92			2.14		0.69	1.37		1.65	0.97	
Uniform Delay, d1		16.0			17.0		13.8	17.0		17.0	16.7	
Progression Factor		1.00			1.00		0.41	0.56		1.00	1.00	
Incremental Delay, d2		24.9			523.3		10.2	169.0		344.1	23.8	
Delay (s)		40.8			540.3		15.9	178.5		361.1	40.5	
Level of Service		D			F		B	F		F	D	
Approach Delay (s)		40.8			540.3			170.3			78.9	
Approach LOS		D			F			F			E	

Intersection Summary			
HCM Average Control Delay	192.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.89		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	153.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.98		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	1131		1118	1154		1118	2204		1118	2202	
Flt Permitted	0.56	1.00		0.40	1.00		0.14	1.00		0.14	1.00	
Satd. Flow (perm)	656	1131		474	1154		163	2204		163	2202	
Volume (vph)	153	273	96	72	210	31	91	1079	113	44	1068	119
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	156	279	98	73	214	32	93	1101	115	45	1090	121
RTOR Reduction (vph)	0	22	0	0	9	0	0	12	0	0	13	0
Lane Group Flow (vph)	156	355	0	73	237	0	93	1204	0	45	1198	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	21.5	21.5		21.5	21.5		28.4	28.4		28.4	28.4	
Effective Green, g (s)	23.1	23.1		23.1	23.1		28.9	28.9		28.9	28.9	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.48	0.48		0.48	0.48	
Clearance Time (s)	5.6	5.6		5.6	5.6		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	253	435		182	444		79	1062		79	1061	
v/s Ratio Prot		c0.31			0.21			0.55			0.54	
v/s Ratio Perm	0.24			0.15			c0.57			0.28		
v/c Ratio	0.62	0.82		0.40	0.53		1.18	1.13		0.57	1.13	
Uniform Delay, d1	14.9	16.5		13.4	14.3		15.6	15.6		11.1	15.6	
Progression Factor	0.46	0.39		1.00	1.00		1.67	1.84		0.90	0.94	
Incremental Delay, d2	3.1	8.2		1.4	1.2		132.8	67.5		2.7	59.2	
Delay (s)	9.9	14.6		14.9	15.5		158.7	96.1		12.6	73.8	
Level of Service	A	B		B	B		F	F		B	E	
Approach Delay (s)		13.2			15.4			100.6			71.6	
Approach LOS		B			B			F			E	

Intersection Summary			
HCM Average Control Delay	68.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		0.97	0.91	1.00		0.97	0.91	1.00	1.00	0.95		1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00		1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95
Satd. Flow (prot)		3072	4550	1417		3072	4550	1417	1583	3162		1583
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.09	1.00		0.09
Satd. Flow (perm)		3072	4550	1417		3072	4550	1417	150	3162		142
Volume (vph)	2	260	1640	124	16	282	1138	298	103	1033	10	192
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	2	263	1657	125	16	285	1149	301	104	1043	10	194
RTOR Reduction (vph)	0	0	0	25	0	0	0	31	0	1	0	0
Lane Group Flow (vph)	0	265	1657	100	0	301	1149	270	104	1052	0	194
Turn Type	Prot	Prot		pm+ov	Prot	Prot		pm+ov	pm+pt			pm+pt
Protected Phases	1	1	6	3	5	5	2	7	3	8		7
Permitted Phases				6				2	8			4
Actuated Green, G (s)		14.8	30.0	39.3		16.2	31.4	43.4	50.9	41.6		56.3
Effective Green, g (s)		14.8	31.5	40.8		16.2	32.9	44.9	53.6	44.3		59.0
Actuated g/C Ratio		0.12	0.26	0.34		0.13	0.27	0.37	0.45	0.37		0.49
Clearance Time (s)		4.0	5.5	4.0		4.0	5.5	4.0	4.0	6.7		4.0
Vehicle Extension (s)		3.0	5.0	3.0		3.0	5.0	3.0	3.0	4.0		3.0
Lane Grp Cap (vph)		379	1194	529		415	1247	577	178	1167		214
v/s Ratio Prot		0.09	c0.36	0.01		c0.10	0.25	0.05	0.05	0.33		c0.09
v/s Ratio Perm				0.06				0.14	0.21			0.36
v/c Ratio		0.70	1.39	0.19		0.73	0.92	0.47	0.58	0.90		0.91
Uniform Delay, d1		50.5	44.2	27.9		49.8	42.3	28.5	24.7	35.8		32.2
Progression Factor		1.47	0.60	0.08		1.54	0.85	0.06	1.00	1.00		1.34
Incremental Delay, d2		3.7	178.0	0.1		0.6	1.5	0.1	4.8	9.9		17.9
Delay (s)		77.9	204.7	2.3		77.5	37.5	1.7	29.5	45.7		61.1
Level of Service		E	F	A		E	D	A	C	D		E
Approach Delay (s)			176.0				38.2			44.3		
Approach LOS			F				D			D		

Intersection Summary			
HCM Average Control Delay	85.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1700	1700
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.95	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3167	1417
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3167	1417
Volume (vph)	1149	92
Peak-hour factor, PHF	0.99	0.99
Adj. Flow (vph)	1161	93
RTOR Reduction (vph)	0	49
Lane Group Flow (vph)	1161	44
Turn Type		Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	44.3	44.3
Effective Green, g (s)	47.0	47.0
Actuated g/C Ratio	0.39	0.39
Clearance Time (s)	6.7	6.7
Vehicle Extension (s)	4.0	4.0
Lane Grp Cap (vph)	1240	555
v/s Ratio Prot	c0.37	
v/s Ratio Perm		0.03
v/c Ratio	0.94	0.08
Uniform Delay, d1	35.1	22.9
Progression Factor	1.10	1.43
Incremental Delay, d2	5.9	0.0
Delay (s)	44.6	32.9
Level of Service	D	C
Approach Delay (s)	46.1	
Approach LOS	D	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.86		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4518		1583	5682		1583	3132		1583	3127	
Flt Permitted	0.12	1.00		0.11	1.00		0.15	1.00		0.13	1.00	
Satd. Flow (perm)	205	4518		183	5682		247	3132		215	3127	
Volume (vph)	72	1518	74	74	2623	165	76	894	70	256	1191	108
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	75	1581	77	77	2732	172	79	931	73	267	1241	112
RTOR Reduction (vph)	0	6	0	0	10	0	0	6	0	0	0	0
Lane Group Flow (vph)	75	1652	0	77	2894	0	79	998	0	267	1353	0
Turn Type	Perm			pm+pt			Perm			pm+pt		
Protected Phases		2		1	6			8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	31.5	31.5		41.0	41.0		25.6	25.6		38.6	38.6	
Effective Green, g (s)	32.5	32.5		42.0	42.0		27.0	27.0		40.0	40.0	
Actuated g/C Ratio	0.36	0.36		0.47	0.47		0.30	0.30		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.5	5.0		5.4	5.4		3.5	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	1632		171	2652		74	940		232	1390	
v/s Ratio Prot		0.37		0.03	c0.51			0.32		c0.11	0.43	
v/s Ratio Perm	0.37			0.18			0.32			c0.40		
v/c Ratio	1.01	1.01		0.45	1.09		1.07	1.06		1.15	0.97	
Uniform Delay, d1	28.8	28.8		18.7	24.0		31.5	31.5		22.3	24.5	
Progression Factor	1.79	1.83		1.25	0.50		0.91	0.92		1.00	1.00	
Incremental Delay, d2	34.8	10.1		0.9	44.6		115.9	44.9		105.8	18.6	
Delay (s)	86.3	62.8		24.2	56.7		144.6	74.0		128.2	43.0	
Level of Service	F	E		C	E		F	E		F	D	
Approach Delay (s)		63.8			55.8			79.2			57.1	
Approach LOS		E			E			E			E	

Intersection Summary			
HCM Average Control Delay	61.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4550	1417	1583	4550	1417	1583	3167	1417	1583	3103	
Flt Permitted	0.13	1.00	1.00	0.13	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	218	4550	1417	218	4550	1417	1583	3167	1417	1583	3103	
Volume (vph)	187	1269	127	313	1623	275	121	560	88	165	875	137
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	189	1282	128	316	1639	278	122	566	89	167	884	138
RTOR Reduction (vph)	0	0	19	0	0	87	0	0	6	0	14	0
Lane Group Flow (vph)	189	1282	109	316	1639	191	122	566	83	167	1008	0
Turn Type	pm+pt		pm+ov	pm+pt		pm+ov	Prot		pm+ov	Prot		
Protected Phases	1	6	3	5	2	7	3	8	5	7	4	
Permitted Phases	6		6	2		2			8			
Actuated Green, G (s)	35.2	28.7	35.6	35.2	28.7	35.2	6.9	30.2	36.7	6.5	29.8	
Effective Green, g (s)	36.6	30.6	37.0	36.6	30.6	36.6	6.4	31.4	37.4	6.0	31.0	
Actuated g/C Ratio	0.41	0.34	0.41	0.41	0.34	0.41	0.07	0.35	0.42	0.07	0.34	
Clearance Time (s)	3.5	5.9	3.5	3.5	5.9	3.5	3.5	5.2	3.5	3.5	5.2	
Vehicle Extension (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)	180	1547	583	180	1547	639	113	1105	652	106	1069	
v/s Ratio Prot	0.07	0.28	0.01	c0.12	0.36	0.02	c0.08	0.18	0.01	c0.11	c0.32	
v/s Ratio Perm	0.36		0.06	c0.60		0.12			0.05			
v/c Ratio	1.05	0.83	0.19	1.76	1.06	0.30	1.08	0.51	0.13	1.58	0.94	
Uniform Delay, d1	24.3	27.3	16.9	22.5	29.7	18.0	41.8	23.2	16.2	42.0	28.6	
Progression Factor	1.21	0.58	0.58	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.07	
Incremental Delay, d2	34.7	0.5	0.0	361.8	40.5	0.3	107.7	0.8	0.1	273.9	7.0	
Delay (s)	64.1	16.3	9.9	384.3	70.2	18.3	149.5	24.0	16.3	329.8	37.5	
Level of Service	E	B	A	F	E	B	F	C	B	F	D	
Approach Delay (s)		21.5			108.2			42.8			78.6	
Approach LOS		C			F			D			E	

Intersection Summary			
HCM Average Control Delay	69.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.95		1.00	1.00	0.75	1.00	0.86		1.00	0.99	
Flpb, ped/bikes	0.83	1.00		0.66	1.00	1.00	0.95	1.00		0.84	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.92		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1318	1564		1048	1667	1062	1504	2500		1332	3119	
Flt Permitted	0.55	1.00		0.69	1.00	1.00	0.19	1.00		0.57	1.00	
Satd. Flow (perm)	758	1564		764	1667	1062	297	2500		799	3119	
Volume (vph)	14	83	10	287	190	31	67	125	155	139	1054	32
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	15	88	11	305	202	33	71	133	165	148	1121	34
RTOR Reduction (vph)	0	6	0	0	0	24	0	36	0	0	3	0
Lane Group Flow (vph)	15	93	0	305	202	9	71	262	0	148	1152	0
Confl. Peds. (#/hr)	212		207	207		212	177		203	203		177
Confl. Bikes (#/hr)			13			9			15			12
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2			2		
Actuated Green, G (s)	20.2	20.2		20.2	20.2	20.2	45.3	45.3		45.3	45.3	
Effective Green, g (s)	21.0	21.0		21.0	21.0	21.0	46.0	46.0		46.0	46.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28	0.61	0.61		0.61	0.61	
Clearance Time (s)	4.8	4.8		4.8	4.8	4.8	4.7	4.7		4.7	4.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	212	438		214	467	297	182	1533		490	1913	
v/s Ratio Prot		0.06			0.12			0.10			c0.37	
v/s Ratio Perm	0.02			c0.40		0.01	0.24			0.19		
v/c Ratio	0.07	0.21		1.43	0.43	0.03	0.39	0.17		0.30	0.60	
Uniform Delay, d1	19.8	20.7		27.0	22.1	19.6	7.4	6.3		6.9	8.9	
Progression Factor	1.00	1.00		0.90	0.89	0.89	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	1.1		214.6	2.7	0.2	6.2	0.2		1.6	1.4	
Delay (s)	20.5	21.8		238.9	22.4	17.6	13.6	6.5		8.5	10.3	
Level of Service	C	C		F	C	B	B	A		A	B	
Approach Delay (s)		21.6			144.4			7.9			10.1	
Approach LOS		C			F			A			B	

Intersection Summary			
HCM Average Control Delay	41.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes		0.99		1.00	0.86		1.00	1.00	0.72	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00		0.97	1.00	1.00	0.89	1.00	
Frt		0.93		1.00	0.86		1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1069		1118	878		1087	2235	722	1000	2234	
Flt Permitted		0.99		0.76	1.00		0.21	1.00	1.00	0.38	1.00	
Satd. Flow (perm)		1069		888	878		241	2235	722	399	2234	
Volume (vph)	1	1	2	218	8	71	3	586	155	77	937	2
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1	1	2	222	8	72	3	598	158	79	956	2
RTOR Reduction (vph)	0	2	0	0	49	0	0	0	80	0	0	0
Lane Group Flow (vph)	0	2	0	222	31	0	3	598	78	79	958	0
Confl. Peds. (#/hr)	82					82	77		239	239		77
Confl. Bikes (#/hr)			2			6			9			5
Turn Type	Split			Perm			Perm		Perm	custom		
Protected Phases	3	3			4			6				
Permitted Phases				4			6		6	2	2	
Actuated Green, G (s)		1.4		22.8	22.8		36.2	36.2	36.2	36.2	36.2	
Effective Green, g (s)		2.4		23.8	23.8		36.8	36.8	36.8	36.8	36.8	
Actuated g/C Ratio		0.03		0.32	0.32		0.49	0.49	0.49	0.49	0.49	
Clearance Time (s)		5.0		5.0	5.0		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		34		282	279		118	1097	354	196	1096	
v/s Ratio Prot		c0.00			0.04			0.27				
v/s Ratio Perm				c0.25			0.01		0.11	0.20	c0.43	
v/c Ratio		0.06		0.79	0.11		0.03	0.55	0.22	0.40	0.87	
Uniform Delay, d1		35.2		23.3	18.1		9.9	13.3	10.9	12.1	17.0	
Progression Factor		1.00		1.99	3.82		0.93	1.06	2.59	1.00	1.00	
Incremental Delay, d2		0.8		12.3	0.2		0.3	1.3	1.0	6.1	9.7	
Delay (s)		36.0		58.7	69.3		9.4	15.4	29.2	18.2	26.8	
Level of Service		D		E	E		A	B	C	B	C	
Approach Delay (s)		36.0			61.5			18.2			26.1	
Approach LOS		D			E			B			C	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		1.00	0.86		1.00	0.95	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	0.97		1.00	0.98		1.00	1.00	0.68	1.00	1.00	0.79
Flpb, ped/bikes	1.00	1.00		0.97	1.00		0.98	1.00	1.00	0.98	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3899		1083	3932		1099	2235	685	1092	1176	1396
Flt Permitted	0.95	1.00		0.07	1.00		0.19	1.00	1.00	0.58	1.00	1.00
Satd. Flow (perm)	2168	3899		85	3932		219	2235	685	672	1176	1396
Volume (vph)	295	1908	102	44	2035	132	181	260	80	183	333	699
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	307	1988	106	46	2120	138	189	271	83	191	347	728
RTOR Reduction (vph)	0	5	0	0	6	0	0	0	2	0	0	0
Lane Group Flow (vph)	307	2089	0	46	2252	0	189	271	81	191	347	728
Confl. Peds. (#/hr)	200		292	292		200	334		233	23		334
Confl. Bikes (#/hr)			4			9			6			5
Turn Type	Prot			Perm			pm+pt		Perm	Perm		pm+ov
Protected Phases	1	6			2		3	8			4	1
Permitted Phases				2			8		8	4		4
Actuated Green, G (s)	25.0	90.0		61.0	61.0		49.2	49.2	49.2	35.2	35.2	60.2
Effective Green, g (s)	25.0	91.0		62.0	62.0		51.0	51.0	51.0	37.0	37.0	62.0
Actuated g/C Ratio	0.17	0.61		0.41	0.41		0.34	0.34	0.34	0.25	0.25	0.41
Clearance Time (s)	4.0	5.0		5.0	5.0		4.0	5.8	5.8	5.8	5.8	4.0
Vehicle Extension (s)	2.0	4.0		4.0	4.0		2.0	3.0	3.0	3.0	3.0	2.0
Lane Grp Cap (vph)	361	2365		35	1625		133	760	233	166	290	614
v/s Ratio Prot	0.14	0.54			c0.57		c0.09	0.12			0.29	c0.20
v/s Ratio Perm				0.54			c0.39		0.12	0.28		0.32
v/c Ratio	0.85	0.88		1.31	1.39		1.42	0.36	0.35	1.15	1.20	1.19
Uniform Delay, d1	60.7	25.0		44.0	44.0		46.5	37.2	37.1	56.5	56.5	44.0
Progression Factor	0.82	1.50		0.70	0.70		1.00	1.00	1.00	0.92	0.93	1.07
Incremental Delay, d2	1.8	0.5		158.7	173.9		227.5	0.3	0.9	103.7	108.8	94.5
Delay (s)	51.8	38.1		189.3	204.5		274.0	37.5	38.0	155.6	161.1	141.8
Level of Service	D	D		F	F		F	D	D	F	F	F
Approach Delay (s)		39.9			204.2			119.9			149.2	
Approach LOS		D			F			F			F	

Intersection Summary			
HCM Average Control Delay	125.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	124.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0		4.0		4.0			
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00			
Frt		0.98		1.00	1.00		1.00		0.85			
Flt Protected		1.00		0.95	1.00		0.95		1.00			
Satd. Flow (prot)		3116		1583	3167		1583		1417			
Flt Permitted		1.00		0.08	1.00		0.76		1.00			
Satd. Flow (perm)		3116		128	3167		1262		1417			
Volume (vph)	0	1155	139	269	1768	0	379	0	446	0	0	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1191	143	277	1823	0	391	0	460	0	0	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	386	0	0	0
Lane Group Flow (vph)	0	1328	0	277	1823	0	391	0	74	0	0	0
Turn Type				pm+pt			custom		Over	Perm		
Protected Phases		2		1	6				1		4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		57.7		81.0	81.0		30.0		19.3			
Effective Green, g (s)		58.7		82.0	82.0		30.0		19.3			
Actuated g/C Ratio		0.49		0.68	0.68		0.25		0.16			
Clearance Time (s)		5.0		4.0	5.0		4.0		4.0			
Vehicle Extension (s)		4.0		3.0	3.0		3.0		3.0			
Lane Grp Cap (vph)		1524		321	2164		316		228			
v/s Ratio Prot		0.43		0.14	c0.58				0.05			
v/s Ratio Perm				c0.45			c0.31					
v/c Ratio		0.87		0.86	0.84		1.24		0.32			
Uniform Delay, d1		27.3		34.8	14.2		45.0		44.6			
Progression Factor		1.00		0.98	1.13		1.00		1.00			
Incremental Delay, d2		7.1		18.5	3.7		131.0		0.8			
Delay (s)		34.4		52.6	19.8		176.0		45.4			
Level of Service		C		D	B		F		D			
Approach Delay (s)		34.4			24.1			105.4			0.0	
Approach LOS		C			C			F			A	

Intersection Summary			
HCM Average Control Delay	43.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86		0.97	0.86		1.00	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	0.96		1.00	1.00		1.00	1.00	0.93	1.00	1.00	0.91
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.99	1.00	1.00	0.99	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2168	3798		2168	4015		1105	2235	929	1103	2235	1607
Flt Permitted	0.95	1.00		0.95	1.00		0.28	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	2168	3798		2168	4015		331	2235	929	207	2235	1607
Volume (vph)	79	2231	301	89	2661	113	141	702	330	46	384	705
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	2425	327	97	2892	123	153	763	359	50	417	766
RTOR Reduction (vph)	0	16	0	0	4	0	0	0	1	0	0	17
Lane Group Flow (vph)	86	2736	0	97	3011	0	153	763	358	50	417	750
Confl. Peds. (#/hr)	16		128	128		16	73		33	33		73
Confl. Bikes (#/hr)			14			12			27			14
Turn Type	Prot			Prot			pm+pt		pm+ov	Perm		pm+ov
Protected Phases	5	2		1	6		3	8	1		4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	18.0	87.5		6.0	75.5		40.1	40.1	46.1	30.1	30.1	48.1
Effective Green, g (s)	18.0	89.0		6.0	77.0		43.0	43.0	49.0	33.0	33.0	51.0
Actuated g/C Ratio	0.12	0.59		0.04	0.51		0.29	0.29	0.33	0.22	0.22	0.34
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	6.9	4.0	6.9	6.9	4.0
Vehicle Extension (s)	1.0	4.0		1.0	4.0		3.0	2.0	1.0	2.0	2.0	1.0
Lane Grp Cap (vph)	260	2253		87	2061		126	641	328	46	492	546
v/s Ratio Prot	0.04	c0.72		0.04	c0.75		0.05	c0.34	0.04		0.19	c0.16
v/s Ratio Perm							0.30		0.34	0.24		0.30
v/c Ratio	0.33	1.21		1.11	1.46		1.21	1.19	1.09	1.09	0.85	1.37
Uniform Delay, d1	60.5	30.5		72.0	36.5		54.2	53.5	50.5	58.5	56.1	49.5
Progression Factor	0.52	0.44		1.20	0.72		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	96.8		65.9	207.7		148.9	100.6	76.1	159.3	12.3	179.1
Delay (s)	31.6	110.3		152.2	233.8		203.1	154.1	126.6	217.8	68.4	228.6
Level of Service	C	F		F	F		F	F	F	F	E	F
Approach Delay (s)		107.9			231.3			152.2			174.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	169.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		0.97	0.81		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	0.96		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1118	4011		2168	4696		1118	2151		1118	2149	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1118	4011		2168	4696		1118	2151		1118	2149	
Volume (vph)	93	2137	135	292	2542	270	121	699	234	110	670	231
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	97	2226	141	304	2648	281	126	728	244	115	698	241
RTOR Reduction (vph)	0	6	0	0	13	0	0	22	0	0	23	0
Lane Group Flow (vph)	97	2361	0	304	2916	0	126	950	0	115	916	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	12.0	64.5		19.0	71.5		17.0	35.0		12.0	30.0	
Effective Green, g (s)	12.0	66.0		19.0	73.0		17.0	37.0		12.0	32.0	
Actuated g/C Ratio	0.08	0.44		0.13	0.49		0.11	0.25		0.08	0.21	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.0	4.0		1.0	4.0		1.0	4.0		1.0	4.0	
Lane Grp Cap (vph)	89	1765		275	2285		127	531		89	458	
v/s Ratio Prot	0.09	c0.59		0.14	c0.62		0.11	c0.44		0.10	c0.43	
v/s Ratio Perm												
v/c Ratio	1.09	1.34		1.11	1.28		0.99	1.79		1.29	2.00	
Uniform Delay, d1	69.0	42.0		65.5	38.5		66.4	56.5		69.0	59.0	
Progression Factor	1.04	0.92		0.83	0.70		1.00	1.00		1.00	1.00	
Incremental Delay, d2	86.3	153.5		53.0	124.6		77.1	362.7		192.5	457.9	
Delay (s)	158.4	192.0		107.1	151.7		143.5	419.2		261.5	516.9	
Level of Service	F	F		F	F		F	F		F	F	
Approach Delay (s)		190.7			147.5			387.6			489.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	240.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	131.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	4504		1583	4550	1417	1583	3167	1417	1583	3108	
Flt Permitted	0.12	1.00		0.95	1.00	1.00	0.25	1.00	1.00	0.11	1.00	
Satd. Flow (perm)	208	4504		1583	4550	1417	414	3167	1417	185	3108	
Volume (vph)	120	1584	115	239	2493	156	103	1200	119	69	652	92
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	122	1616	117	244	2544	159	105	1224	121	70	665	94
RTOR Reduction (vph)	0	9	0	0	0	8	0	0	38	0	1	0
Lane Group Flow (vph)	122	1724	0	244	2544	151	105	1224	83	70	758	0
Turn Type	Perm			Prot		Perm	Perm		Perm	Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8					4	6		6	2		
Actuated Green, G (s)	31.0	31.0		10.5	45.0	45.0	35.0	35.0	35.0	35.0	35.0	
Effective Green, g (s)	32.0	32.0		10.0	46.0	46.0	36.0	36.0	36.0	36.0	36.0	
Actuated g/C Ratio	0.36	0.36		0.11	0.51	0.51	0.40	0.40	0.40	0.40	0.40	
Clearance Time (s)	5.0	5.0		3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	74	1601		176	2326	724	166	1267	567	74	1243	
v/s Ratio Prot		0.38		c0.15	0.56			c0.39			0.24	
v/s Ratio Perm	c0.59					0.11	0.25		0.06	0.38		
v/c Ratio	1.65	1.08		1.39	1.09	0.21	0.63	0.97	0.15	0.95	0.61	
Uniform Delay, d1	29.0	29.0		40.0	22.0	12.0	21.7	26.4	17.2	26.1	21.4	
Progression Factor	0.68	0.68		1.07	0.56	0.15	0.72	0.69	0.64	1.00	1.00	
Incremental Delay, d2	338.8	45.2		177.1	43.0	0.1	13.5	15.7	0.4	90.3	2.2	
Delay (s)	358.6	64.9		220.1	55.2	1.9	29.0	34.0	11.5	116.4	23.7	
Level of Service	F	E		F	E	A	C	C	B	F	C	
Approach Delay (s)		84.2			66.0			31.8			31.5	
Approach LOS		F			E			C			C	

Intersection Summary			
HCM Average Control Delay	59.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	120.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	1583	4493		1583	3099		1583	3167	1417
Flt Permitted	0.18	1.00	1.00	0.15	1.00		0.95	1.00		0.23	1.00	1.00
Satd. Flow (perm)	303	4550	1417	256	4493		1583	3099		380	3167	1417
Volume (vph)	75	1296	196	222	1481	135	210	1005	166	30	974	120
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	76	1309	198	224	1496	136	212	1015	168	30	984	121
RTOR Reduction (vph)	0	0	27	0	12	0	0	15	0	0	0	21
Lane Group Flow (vph)	76	1309	171	224	1620	0	212	1168	0	30	984	100
Turn Type	Perm		pm+ov	pm+pt			Prot			Perm		Perm
Protected Phases		6	3	5	2		3	8			4	
Permitted Phases	6		6	2						4		4
Actuated Green, G (s)	20.5	20.5	32.0	29.5	29.5		11.5	50.5		35.5	35.5	35.5
Effective Green, g (s)	22.0	22.0	33.0	31.0	31.0		11.0	51.0		36.0	36.0	36.0
Actuated g/C Ratio	0.24	0.24	0.37	0.34	0.34		0.12	0.57		0.40	0.40	0.40
Clearance Time (s)	5.5	5.5	3.5	3.0	5.5		3.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0		2.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	74	1112	583	162	1548		193	1756		152	1267	567
v/s Ratio Prot		0.29	0.04	c0.08	0.36		c0.13	0.38			c0.31	
v/s Ratio Perm	0.25		0.09	c0.40						0.08		0.07
v/c Ratio	1.03	1.18	0.29	1.38	1.05		1.10	0.67		0.20	0.78	0.18
Uniform Delay, d1	34.0	34.0	20.2	29.2	29.5		39.5	13.6		17.6	23.5	17.4
Progression Factor	1.00	1.00	1.00	1.76	1.63		1.00	1.00		1.45	1.45	1.64
Incremental Delay, d2	112.3	89.3	0.1	175.8	23.1		93.6	2.0		1.8	3.0	0.4
Delay (s)	146.3	123.3	20.3	227.2	71.3		133.1	15.6		27.2	37.1	29.1
Level of Service	F	F	C	F	E		F	B		C	D	C
Approach Delay (s)		111.5			90.1			33.4			36.0	
Approach LOS		F			F			C			D	

Intersection Summary			
HCM Average Control Delay	72.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	0.86	0.86	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	
Satd. Flow (prot)	1303	3742		1304	3747	1129	1304	2608	1137	2243	2289	
Flt Permitted	0.08	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	
Satd. Flow (perm)	106	3742		1304	3747	1129	1304	2608	1137	2243	2289	
Volume (vph)	22	1308	10	80	1675	930	95	407	249	830	215	7
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	22	1335	10	82	1709	949	97	415	254	847	219	7
RTOR Reduction (vph)	0	1	0	0	0	356	0	0	0	0	1	0
Lane Group Flow (vph)	22	1344	0	82	1709	593	97	415	254	565	507	0
Confl. Peds. (#/hr)	11		9	9		11	58		11	11		58
Confl. Bikes (#/hr)			6			8			10			4
Turn Type	Perm			Prot		Perm	Split		pm+ov	Split		
Protected Phases		6		5	2		3	3	5	4	4	
Permitted Phases	6					2			3			
Actuated Green, G (s)	57.1	57.1		10.0	71.1	71.1	24.5	24.5	34.5	39.4	39.4	
Effective Green, g (s)	58.1	58.1		10.0	72.1	72.1	25.5	25.5	35.5	40.4	40.4	
Actuated g/C Ratio	0.39	0.39		0.07	0.48	0.48	0.17	0.17	0.24	0.27	0.27	
Clearance Time (s)	5.0	5.0		4.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		2.0	4.0	4.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)	41	1449		87	1801	543	222	443	269	604	617	
v/s Ratio Prot		0.36		0.06	0.46		0.07	0.16	c0.06	c0.25	0.22	
v/s Ratio Perm	0.21					c0.53			0.16			
v/c Ratio	0.54	0.93		0.94	0.95	1.09	0.44	0.94	0.94	0.94	0.88dl	
Uniform Delay, d1	35.5	43.9		69.7	37.2	39.0	55.8	61.5	56.3	53.5	51.4	
Progression Factor	1.67	1.66		1.12	1.00	3.48	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	36.4	10.2		16.6	1.6	44.9	0.5	27.0	39.4	22.1	9.1	
Delay (s)	95.8	83.2		95.0	38.8	180.4	56.3	88.5	95.6	75.6	60.5	
Level of Service	F	F		F	D	F	E	F	F	E	E	
Approach Delay (s)		83.4			89.5			86.8			68.5	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	84.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	121.2%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00			0.95	
Frt	1.00	0.98		1.00	1.00	0.85		0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			0.99	
Satd. Flow (prot)	1583	4476		1583	3167	1417		1632			3048	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.98			0.74	
Satd. Flow (perm)	1583	4476		1583	3167	1417		1600			2268	
Volume (vph)	159	897	108	90	867	104	10	274	47	74	341	106
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	167	944	114	95	913	109	11	288	49	78	359	112
RTOR Reduction (vph)	0	13	0	0	0	62	0	5	0	0	28	0
Lane Group Flow (vph)	167	1045	0	95	913	47	0	343	0	0	521	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases						2						
Actuated Green, G (s)	12.8	43.4		8.3	38.9	38.9		26.0			26.0	
Effective Green, g (s)	12.8	43.7		8.3	39.2	39.2		26.0			26.0	
Actuated g/C Ratio	0.14	0.49		0.09	0.44	0.44		0.29			0.29	
Clearance Time (s)	4.0	4.3		4.0	4.3	4.3		4.0			4.0	
Vehicle Extension (s)	3.0	5.7		3.0	5.5	5.5		3.0			3.0	
Lane Grp Cap (vph)	225	2173		146	1379	617		462			655	
v/s Ratio Prot	c0.11	0.23		0.06	c0.29							
v/s Ratio Perm						0.03		0.21			c0.23	
v/c Ratio	0.74	0.48		0.65	0.66	0.08		0.74			2.87dl	
Uniform Delay, d1	37.0	15.5		39.5	20.1	14.8		29.0			29.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	12.4	0.8		9.9	2.5	0.2		6.3			6.7	
Delay (s)	49.4	16.3		49.4	22.7	15.1		35.3			36.2	
Level of Service	D	B		D	C	B		D			D	
Approach Delay (s)		20.8			24.2			35.3			36.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.87	1.00	1.00	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.90	1.00	1.00	0.92	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1293	3711		1289	3739		1179	2608	1013	1204	2605	
Flt Permitted	0.09	1.00		0.15	1.00		0.37	1.00	1.00	0.53	1.00	
Satd. Flow (perm)	127	3711		207	3739		453	2608	1013	671	2605	
Volume (vph)	30	1284	46	73	1665	10	59	248	16	37	421	1
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	31	1338	48	76	1734	10	61	258	17	39	439	1
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	31	1384	0	76	1744	0	61	258	5	39	440	0
Confl. Peds. (#/hr)	63		61	61		63	79		72	72		79
Confl. Bikes (#/hr)			9			13			4			9
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	97.5	97.5		97.5	97.5		44.0	44.0	44.0	44.0	44.0	
Effective Green, g (s)	98.0	98.0		98.0	98.0		44.0	44.0	44.0	44.0	44.0	
Actuated g/C Ratio	0.65	0.65		0.65	0.65		0.29	0.29	0.29	0.29	0.29	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	83	2425		135	2443		133	765	297	197	764	
v/s Ratio Prot		0.37			c0.47			0.10			c0.17	
v/s Ratio Perm	0.24			0.37			0.13		0.00	0.06		
v/c Ratio	0.37	0.57		0.56	0.71		0.46	0.34	0.02	0.20	0.58	
Uniform Delay, d1	11.9	14.4		14.3	16.9		43.3	41.6	37.6	39.8	45.1	
Progression Factor	1.00	1.00		1.65	1.83		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	12.4	1.0		6.4	0.7		11.0	1.2	0.1	2.2	3.1	
Delay (s)	24.3	15.4		29.9	31.6		54.2	42.8	37.7	42.0	48.2	
Level of Service	C	B		C	C		D	D	D	D	D	
Approach Delay (s)		15.5			31.5			44.6			47.7	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.97			0.96		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1611			1584		1583	1662		1583	1667	1417
Flt Permitted		0.94			0.90		0.35	1.00		0.39	1.00	1.00
Satd. Flow (perm)		1528			1429		575	1662		652	1667	1417
Volume (vph)	66	345	105	19	65	38	93	466	10	93	533	76
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	69	359	109	20	68	40	97	485	10	97	555	79
RTOR Reduction (vph)	0	15	0	0	27	0	0	1	0	0	0	36
Lane Group Flow (vph)	0	522	0	0	101	0	97	494	0	97	555	43
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		8			4			2			6	
Permitted Phases	8			4			2			6		6
Actuated Green, G (s)		18.5			18.5		32.7	32.7		32.7	32.7	32.7
Effective Green, g (s)		19.0			19.0		33.0	33.0		33.0	33.0	33.0
Actuated g/C Ratio		0.32			0.32		0.55	0.55		0.55	0.55	0.55
Clearance Time (s)		4.5			4.5		4.3	4.3		4.3	4.3	4.3
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		484			453		316	914		359	917	779
v/s Ratio Prot								0.30			c0.33	
v/s Ratio Perm		c0.34			0.07		0.17			0.15		0.03
v/c Ratio		1.08			0.22		0.31	0.54		0.27	0.61	0.06
Uniform Delay, d1		20.5			15.1		7.3	8.6		7.1	9.1	6.3
Progression Factor		1.00			1.00		0.94	0.84		1.00	1.00	1.00
Incremental Delay, d2		63.7			0.2		1.7	1.6		1.8	3.0	0.1
Delay (s)		84.2			15.3		8.6	8.9		9.0	12.1	6.4
Level of Service		F			B		A	A		A	B	A
Approach Delay (s)		84.2			15.3			8.8			11.0	
Approach LOS		F			B			A			B	

Intersection Summary			
HCM Average Control Delay	30.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1304	3667		1304	3693		1304	1373	1167	1304	1369	
Flt Permitted	0.23	1.00		0.19	1.00		0.28	1.00	1.00	0.36	1.00	
Satd. Flow (perm)	311	3667		256	3693		380	1373	1167	488	1369	
Volume (vph)	73	903	150	86	850	91	98	476	84	53	556	10
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	921	153	88	867	93	100	486	86	54	567	10
RTOR Reduction (vph)	0	38	0	0	21	0	0	0	24	0	1	0
Lane Group Flow (vph)	74	1036	0	88	939	0	100	486	62	54	576	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Actuated Green, G (s)	22.9	22.9		22.9	22.9		27.5	27.5	27.5	27.5	27.5	
Effective Green, g (s)	23.5	23.5		23.5	23.5		28.5	28.5	28.5	28.5	28.5	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.48	0.48	0.48	0.48	0.48	
Clearance Time (s)	4.6	4.6		4.6	4.6		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	
Lane Grp Cap (vph)	122	1436		100	1446		181	652	554	232	650	
v/s Ratio Prot		0.28			0.25			0.35			c0.42	
v/s Ratio Perm	0.24			c0.34			0.26		0.05	0.11		
v/c Ratio	0.61	0.72		0.88	0.65		0.55	0.75	0.11	0.23	0.89	
Uniform Delay, d1	14.6	15.5		16.9	14.9		11.2	12.8	8.7	9.3	14.3	
Progression Factor	1.00	1.00		1.11	0.71		1.00	1.00	1.00	0.54	0.75	
Incremental Delay, d2	20.4	3.2		58.4	2.1		11.6	7.6	0.4	1.7	12.7	
Delay (s)	35.0	18.6		77.3	12.7		22.8	20.4	9.1	6.7	23.4	
Level of Service	C	B		E	B		C	C	A	A	C	
Approach Delay (s)		19.7			18.1			19.3			21.9	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.86	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	4456		1583	5733	1417	1583	3091		1583	3167	1417
Flt Permitted	0.10	1.00		0.13	1.00	1.00	0.13	1.00		0.19	1.00	1.00
Satd. Flow (perm)	159	4456		222	5733	1417	215	3091		323	3167	1417
Volume (vph)	77	1090	174	211	1637	253	131	641	122	146	1173	63
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	80	1135	181	220	1705	264	136	668	127	152	1222	66
RTOR Reduction (vph)	0	24	0	0	0	40	0	18	0	0	0	18
Lane Group Flow (vph)	80	1292	0	220	1705	224	136	777	0	152	1222	48
Turn Type	Perm			Perm		pm+ov	pm+pt			pm+pt		Perm
Protected Phases		6			2	7	3	8		7	4	
Permitted Phases	6			2		2	8			4		4
Actuated Green, G (s)	41.0	41.0		41.0	41.0	46.0	34.1	29.1		34.1	29.1	29.1
Effective Green, g (s)	42.0	42.0		42.0	42.0	47.0	36.0	31.0		36.0	31.0	31.0
Actuated g/C Ratio	0.47	0.47		0.47	0.47	0.52	0.40	0.34		0.40	0.34	0.34
Clearance Time (s)	5.0	5.0		5.0	5.0	4.0	4.0	5.9		4.0	5.9	5.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	74	2079		104	2675	803	162	1065		199	1091	488
v/s Ratio Prot		0.29			0.30	0.02	c0.05	0.25		0.04	c0.39	
v/s Ratio Perm	0.50			c0.99		0.14	0.29			0.26		0.03
v/c Ratio	1.08	0.62		2.12	0.64	0.28	0.84	0.73		0.76	1.12	0.10
Uniform Delay, d1	24.0	18.0		24.0	18.2	12.0	22.8	25.8		20.9	29.5	20.0
Progression Factor	1.00	1.00		1.10	1.04	1.62	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	128.5	1.4		504.9	0.1	0.0	29.9	4.4		15.9	66.5	0.4
Delay (s)	152.5	19.4		531.2	19.1	19.5	52.7	30.2		36.7	96.0	20.4
Level of Service	F	B		F	B	B	D	C		D	F	C
Approach Delay (s)		27.1			70.6			33.5			86.3	
Approach LOS		C			E			C			F	

Intersection Summary			
HCM Average Control Delay	58.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frt	0.99		1.00	1.00	1.00	
Flt Protected	1.00		0.95	1.00	0.95	
Satd. Flow (prot)	3709		1304	3747	1304	
Flt Permitted	1.00		0.17	1.00	0.95	
Satd. Flow (perm)	3709		237	3747	1304	
Volume (vph)	1243	89	65	1674	90	0
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1295	93	68	1744	94	0
RTOR Reduction (vph)	4	0	0	0	0	0
Lane Group Flow (vph)	1384	0	68	1744	94	0
Turn Type			Perm			
Protected Phases	6			2	4	
Permitted Phases			2			
Actuated Green, G (s)	70.0		70.0	70.0	11.2	
Effective Green, g (s)	70.1		70.1	70.1	11.9	
Actuated g/C Ratio	0.78		0.78	0.78	0.13	
Clearance Time (s)	4.1		4.1	4.1	4.7	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2889		185	2918	172	
v/s Ratio Prot	0.37			c0.47	c0.07	
v/s Ratio Perm			0.29			
v/c Ratio	0.48		0.37	0.60	0.55	
Uniform Delay, d1	3.5		3.1	4.1	36.5	
Progression Factor	0.18		1.00	1.00	1.00	
Incremental Delay, d2	0.5		5.5	0.9	3.5	
Delay (s)	1.1		8.6	5.0	40.0	
Level of Service	A		A	A	D	
Approach Delay (s)	1.1			5.2	40.0	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.99			0.96			1.00	0.94
Flpb, ped/bikes	0.98	1.00		0.99	1.00			0.99			0.97	1.00
Frt	1.00	0.99		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.97	1.00
Satd. Flow (prot)	1279	3711		1287	3689			1206			1298	1094
Flt Permitted	0.10	1.00		0.18	1.00			0.89			0.83	1.00
Satd. Flow (perm)	141	3711		240	3689			1093			1107	1094
Volume (vph)	49	1245	47	84	1642	58	33	26	47	40	36	45
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	51	1297	49	88	1710	60	34	27	49	42	38	47
RTOR Reduction (vph)	0	3	0	0	3	0	0	37	0	0	0	8
Lane Group Flow (vph)	51	1343	0	88	1767	0	0	73	0	0	80	39
Confl. Peds. (#/hr)	123		38	38		123	46		63	63		46
Confl. Bikes (#/hr)			7			9						1
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)	66.8	66.8		66.8	66.8			15.2			15.2	15.2
Effective Green, g (s)	66.8	66.8		66.8	66.8			15.2			15.2	15.2
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.17			0.17	0.17
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	105	2754		178	2738			185			187	185
v/s Ratio Prot		0.36			c0.48							
v/s Ratio Perm	0.36			0.37				0.07			c0.07	0.04
v/c Ratio	0.49	0.49		0.49	0.65			0.39			0.43	0.21
Uniform Delay, d1	4.7	4.7		4.7	5.7			33.3			33.5	32.2
Progression Factor	2.40	2.89		0.64	0.58			1.00			1.00	1.00
Incremental Delay, d2	8.3	0.3		7.9	1.0			1.4			1.6	0.6
Delay (s)	19.6	13.9		10.9	4.3			34.7			35.1	32.8
Level of Service	B	B		B	A			C			D	C
Approach Delay (s)		14.1			4.6			34.7			34.2	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3167	1417	1583	3167	3006	
Flt Permitted	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (perm)	3167	1417	1583	3167	3006	
Volume (vph)	1155	484	95	1233	335	101
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1216	509	100	1298	353	106
RTOR Reduction (vph)	0	76	0	0	33	0
Lane Group Flow (vph)	1216	433	100	1298	426	0
Turn Type		pt+ov	Prot			
Protected Phases	2	2 4	1	6	4	
Permitted Phases						
Actuated Green, G (s)	41.7	73.9	9.0	38.2	28.3	
Effective Green, g (s)	41.6	73.5	8.5	38.1	27.9	
Actuated g/C Ratio	0.46	0.82	0.09	0.42	0.31	
Clearance Time (s)	3.9		3.5	3.9	3.6	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1464	1157	150	1341	932	
v/s Ratio Prot	c0.38	0.31	c0.06	c0.41	c0.14	
v/s Ratio Perm						
v/c Ratio	0.83	0.37	0.67	0.97	0.46	
Uniform Delay, d1	21.1	2.2	39.4	25.4	25.0	
Progression Factor	0.91	0.10	1.00	1.00	1.00	
Incremental Delay, d2	4.7	0.2	10.7	18.0	0.4	
Delay (s)	23.9	0.4	50.0	43.4	25.3	
Level of Service	C	A	D	D	C	
Approach Delay (s)	17.0			43.8	25.3	
Approach LOS	B			D	C	

Intersection Summary			
HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.99	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1304	3678		1303	3617		1287	2530		1302	2438	
Flt Permitted	0.12	1.00		0.13	1.00		0.32	1.00		0.15	1.00	
Satd. Flow (perm)	163	3678		175	3617		430	2530		208	2438	
Volume (vph)	133	1088	78	131	1274	112	202	868	103	104	378	118
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	137	1122	80	135	1313	115	208	895	106	107	390	122
RTOR Reduction (vph)	0	9	0	0	11	0	0	10	0	0	34	0
Lane Group Flow (vph)	137	1193	0	135	1417	0	208	991	0	107	478	0
Confl. Peds. (#/hr)	105		77	77		105	97		104	104		97
Confl. Bikes (#/hr)			5			11			3			7
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	38.6	32.6		38.6	32.6		35.0	27.0		31.8	25.4	
Effective Green, g (s)	39.6	33.6		39.6	33.6		36.0	28.0		32.8	26.4	
Actuated g/C Ratio	0.44	0.37		0.44	0.37		0.40	0.31		0.36	0.29	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	148	1373		152	1350		248	787		154	715	
v/s Ratio Prot	c0.06	0.32		0.06	c0.39		c0.07	c0.39		0.05	0.20	
v/s Ratio Perm	0.35			0.33			0.26			0.20		
v/c Ratio	0.93	0.87		0.89	1.05		0.84	1.26		0.69	0.67	
Uniform Delay, d1	18.9	26.2		17.8	28.2		22.1	31.0		22.4	28.0	
Progression Factor	1.66	0.62		1.43	0.78		1.55	1.39		1.00	1.00	
Incremental Delay, d2	43.7	6.0		34.7	36.0		16.6	124.2		12.8	2.4	
Delay (s)	75.1	22.3		60.2	57.8		50.8	167.2		35.1	30.3	
Level of Service	E	C		E	E		D	F		D	C	
Approach Delay (s)		27.7			58.0			147.1			31.2	
Approach LOS		C			E			F			C	

Intersection Summary			
HCM Average Control Delay	68.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.99			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1603			1566			3123			3118	
Flt Permitted		0.96			0.70			0.87			0.83	
Satd. Flow (perm)		1544			1115			2731			2592	
Volume (vph)	31	213	49	47	79	36	40	982	50	43	816	44
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	35	242	56	53	90	41	45	1116	57	49	927	50
RTOR Reduction (vph)	0	8	0	0	12	0	0	3	0	0	4	0
Lane Group Flow (vph)	0	325	0	0	172	0	0	1215	0	0	1022	0
Confl. Peds. (#/hr)	28		18	18		28	29		26	26		29
Confl. Bikes (#/hr)			4			2			1			6
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		22.3			22.3			59.3			59.3	
Effective Green, g (s)		22.3			22.3			59.7			59.7	
Actuated g/C Ratio		0.25			0.25			0.66			0.66	
Clearance Time (s)		4.0			4.0			4.4			4.4	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		383			276			1812			1719	
v/s Ratio Prot												
v/s Ratio Perm		c0.21			0.15			c0.44			0.39	
v/c Ratio		0.85			0.62			0.67			0.59	
Uniform Delay, d1		32.2			30.1			9.2			8.4	
Progression Factor		1.00			1.00			1.00			0.92	
Incremental Delay, d2		15.8			4.3			2.0			1.4	
Delay (s)		48.1			34.4			11.2			9.1	
Level of Service		D			C			B			A	
Approach Delay (s)		48.1			34.4			11.2			9.1	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00		0.91		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1304	2608	1167		3716		1304	2608	1167	1304	2602	
Flt Permitted	0.27	1.00	1.00		1.00		0.30	1.00	1.00	0.15	1.00	
Satd. Flow (perm)	375	2608	1167		3716		418	2608	1167	207	2602	
Volume (vph)	64	913	124	0	761	44	74	1063	76	42	679	10
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	65	932	127	0	777	45	76	1085	78	43	693	10
RTOR Reduction (vph)	0	0	70	0	6	0	0	0	36	0	1	0
Lane Group Flow (vph)	65	932	57	0	817	0	76	1085	42	43	702	0
Turn Type	Perm		Perm				Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)	53.0	53.0	53.0		53.0		57.0	57.0	57.0	57.0	57.0	
Effective Green, g (s)	54.0	54.0	54.0		54.0		58.0	58.0	58.0	58.0	58.0	
Actuated g/C Ratio	0.45	0.45	0.45		0.45		0.48	0.48	0.48	0.48	0.48	
Clearance Time (s)	5.0	5.0	5.0		5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	169	1174	525		1672		202	1261	564	100	1258	
v/s Ratio Prot		c0.36			0.22			c0.42			0.27	
v/s Ratio Perm	0.17		0.05				0.18		0.04	0.21		
v/c Ratio	0.38	0.79	0.11		0.49		0.38	0.86	0.08	0.43	0.56	
Uniform Delay, d1	21.9	28.2	19.1		23.3		19.6	27.4	16.6	20.2	21.9	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.5	5.6	0.4		1.0		5.3	7.8	0.3	12.9	1.8	
Delay (s)	28.5	33.8	19.5		24.3		24.9	35.2	16.9	33.1	23.7	
Level of Service	C	C	B		C		C	D	B	C	C	
Approach Delay (s)		31.9			24.3			33.5			24.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	4550	1417	3072	4550	1417	1583	3167	1417	1583	3167	1417
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1583	4550	1417	3072	4550	1417	1583	3167	1417	1583	3167	1417
Volume (vph)	233	1397	346	253	1210	240	178	1333	196	133	627	117
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	243	1455	360	264	1260	250	185	1389	204	139	653	122
RTOR Reduction (vph)	0	0	37	0	0	161	0	0	31	0	0	19
Lane Group Flow (vph)	243	1455	323	264	1260	89	185	1389	173	139	653	103
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	3	8	1	7	4		1	6	7	5	2	3
Permitted Phases			8			4			6			2
Actuated Green, G (s)	13.0	37.3	50.3	12.7	37.0	37.0	13.0	37.4	50.1	12.6	37.0	50.0
Effective Green, g (s)	13.0	39.3	52.3	12.7	39.0	39.0	13.0	39.4	52.1	12.6	39.0	52.0
Actuated g/C Ratio	0.11	0.33	0.44	0.11	0.32	0.32	0.11	0.33	0.43	0.10	0.32	0.43
Clearance Time (s)	4.0	6.0	4.0	4.0	6.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Vehicle Extension (s)	3.0	4.7	3.0	3.0	5.0	5.0	3.0	4.5	3.0	3.0	4.6	3.0
Lane Grp Cap (vph)	171	1490	665	325	1479	461	171	1040	662	166	1029	661
v/s Ratio Prot	c0.15	c0.32	0.05	0.09	0.28		c0.12	c0.44	0.03	0.09	0.21	0.02
v/s Ratio Perm			0.18			0.06			0.09			0.06
v/c Ratio	1.42	0.98	0.49	0.81	0.85	0.19	1.08	1.34	0.26	0.84	0.63	0.16
Uniform Delay, d1	53.5	39.9	24.2	52.5	37.8	29.2	53.5	40.3	21.7	52.7	34.4	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.21	0.70	0.48	1.00	1.00	1.00
Incremental Delay, d2	220.1	18.0	0.6	14.3	5.4	0.4	90.0	157.2	0.2	29.1	3.0	0.1
Delay (s)	273.6	57.9	24.8	66.8	43.2	29.6	154.5	185.5	10.7	81.8	37.4	20.8
Level of Service	F	E	C	E	D	C	F	F	B	F	D	C
Approach Delay (s)		77.5			44.8			162.2			41.9	
Approach LOS		E			D			F			D	

Intersection Summary			
HCM Average Control Delay	86.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.95	1.00
Frt	1.00	0.97		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1583	3070		1583	3105		1583	4439		1583	3167	1417
Flt Permitted	0.22	1.00		0.07	1.00		0.11	1.00		0.16	1.00	1.00
Satd. Flow (perm)	369	3070		124	3105		183	4439		265	3167	1417
Volume (vph)	127	1125	288	156	727	108	209	803	156	70	1133	77
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	130	1148	294	159	742	110	213	819	159	71	1156	79
RTOR Reduction (vph)	0	19	0	0	10	0	0	23	0	0	0	45
Lane Group Flow (vph)	130	1423	0	159	842	0	213	955	0	71	1156	34
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		pm+ov
Protected Phases	1	6		5	2		3	8		7	4	1
Permitted Phases	6			2			8			4		4
Actuated Green, G (s)	60.5	52.3		61.1	52.6		43.9	35.4		40.5	33.7	41.9
Effective Green, g (s)	61.0	53.3		61.6	53.6		44.4	36.4		41.0	34.7	42.4
Actuated g/C Ratio	0.51	0.44		0.51	0.45		0.37	0.30		0.34	0.29	0.35
Clearance Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	3.5
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	4.3		3.0	4.6	3.0
Lane Grp Cap (vph)	265	1364		161	1387		161	1346		160	916	548
v/s Ratio Prot	0.03	c0.46		c0.07	0.27		c0.09	0.22		0.02	0.37	0.00
v/s Ratio Perm	0.22			0.44			c0.40			0.13		0.02
v/c Ratio	0.49	1.04		0.99	0.61		1.32	0.71		0.44	1.26	0.06
Uniform Delay, d1	17.5	33.4		32.6	25.2		58.2	37.1		28.3	42.6	25.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.25	1.27	2.85
Incremental Delay, d2	1.4	36.5		66.6	2.0		181.9	1.9		1.5	124.9	0.0
Delay (s)	18.9	69.8		99.2	27.2		240.1	39.1		37.1	178.8	73.2
Level of Service	B	E		F	C		F	D		D	F	E
Approach Delay (s)		65.6			38.5			75.0			164.7	
Approach LOS		E			D			E			F	

Intersection Summary			
HCM Average Control Delay	87.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			1.00			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1583	3164		1583	3152			1663			1602	
Flt Permitted	0.21	1.00		0.12	1.00			0.98			0.88	
Satd. Flow (perm)	348	3164		193	3152			1639			1415	
Volume (vph)	59	1631	10	40	996	32	13	304	0	41	124	46
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	61	1699	10	42	1038	33	14	317	0	43	129	48
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	20	0
Lane Group Flow (vph)	61	1709	0	42	1068	0	0	331	0	0	200	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	34.3	34.3		34.3	34.3			16.5			16.5	
Effective Green, g (s)	34.6	34.6		34.6	34.6			17.4			17.4	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.29			0.29	
Clearance Time (s)	4.3	4.3		4.3	4.3			4.9			4.9	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	201	1825		111	1818			475			410	
v/s Ratio Prot		c0.54			0.34							
v/s Ratio Perm	0.18			0.22				c0.20			0.14	
v/c Ratio	0.30	0.94		0.38	0.59			0.70			0.49	
Uniform Delay, d1	6.5	11.7		6.9	8.1			19.0			17.6	
Progression Factor	1.30	1.77		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.4	1.2		9.5	1.4			4.4			0.9	
Delay (s)	8.8	21.9		16.4	9.5			23.4			18.5	
Level of Service	A	C		B	A			C			B	
Approach Delay (s)		21.4			9.8			23.4			18.5	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					4.0			4.0		4.0	4.0	
Lane Util. Factor					1.00			0.95		1.00	0.95	
Frpb, ped/bikes					1.00			0.99		1.00	1.00	
Flpb, ped/bikes					0.98			1.00		1.00	1.00	
Frt					0.94			1.00		1.00	1.00	
Flt Protected					0.97			1.00		0.95	1.00	
Satd. Flow (prot)					1496			3131		1583	3167	
Flt Permitted					0.85			1.00		0.06	1.00	
Satd. Flow (perm)					1307			3131		108	3167	
Volume (vph)	0	0	0	70	0	62	0	1548	50	57	1145	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	0	80	0	71	0	1779	57	66	1316	0
RTOR Reduction (vph)	0	0	0	0	12	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	139	0	0	1834	0	66	1316	0
Confl. Peds. (#/hr)			20	20			47		58	58		47
Confl. Bikes (#/hr)			1						7			1
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)					29.5			62.0		62.0	62.0	
Effective Green, g (s)					30.0			62.0		62.0	62.0	
Actuated g/C Ratio					0.30			0.62		0.62	0.62	
Clearance Time (s)					4.5			4.0		4.0	4.0	
Vehicle Extension (s)					3.0			5.0		5.0	5.0	
Lane Grp Cap (vph)					392			1941		67	1964	
v/s Ratio Prot								0.59			0.42	
v/s Ratio Perm					c0.11					c0.61		
v/c Ratio					0.35			0.94		0.99	0.67	
Uniform Delay, d1					27.4			17.4		18.5	12.4	
Progression Factor					1.00			1.00		1.00	1.00	
Incremental Delay, d2					2.5			11.0		105.8	1.8	
Delay (s)					29.9			28.4		124.4	14.2	
Level of Service					C			C		F	B	
Approach Delay (s)		0.0			29.9			28.4			19.5	
Approach LOS		A			C			C			B	

Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.74	1.00	0.98		1.00	1.00	0.79	1.00	0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3072	3167	1048	3072	3019		1578	3167	1117	1583	4347	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.13	1.00	1.00	0.10	1.00	
Satd. Flow (perm)	3072	3167	1048	3072	3019		224	3167	1117	168	4347	
Volume (vph)	254	1333	104	249	749	132	89	1273	422	94	916	107
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	267	1403	109	262	788	139	94	1340	444	99	964	113
RTOR Reduction (vph)	0	0	2	0	12	0	0	0	25	0	12	0
Lane Group Flow (vph)	267	1403	107	262	915	0	94	1340	419	99	1065	0
Confl. Peds. (#/hr)	102		193	193		102	173		149	149		173
Confl. Bikes (#/hr)			6			6			9			5
Turn Type	Prot		pm+ov	Prot			pm+pt		pm+ov	pm+pt		
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases			2				8		8	4		
Actuated Green, G (s)	8.0	48.0	55.0	8.0	48.0		45.3	38.3	46.3	45.3	38.3	
Effective Green, g (s)	8.0	49.3	56.3	8.0	49.3		46.7	39.7	47.7	46.7	39.7	
Actuated g/C Ratio	0.07	0.41	0.47	0.07	0.41		0.39	0.33	0.40	0.39	0.33	
Clearance Time (s)	4.0	5.3	4.0	4.0	5.3		4.0	5.4	4.0	4.0	5.4	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	205	1301	527	205	1240		166	1048	481	148	1438	
v/s Ratio Prot	0.09	c0.44	0.01	c0.09	0.30		0.03	c0.42	0.06	c0.04	0.24	
v/s Ratio Perm			0.09				0.19		0.32	0.22		
v/c Ratio	1.30	1.08	0.20	1.28	0.74		0.57	1.28	0.87	0.67	0.74	
Uniform Delay, d1	56.0	35.4	18.7	56.0	29.9		25.6	40.1	33.3	56.8	35.6	
Progression Factor	0.83	0.72	0.60	1.10	0.76		1.07	1.14	1.52	1.00	1.00	
Incremental Delay, d2	152.7	43.0	0.1	153.1	3.4		1.3	127.6	5.3	10.9	3.5	
Delay (s)	199.1	68.6	11.4	214.8	26.0		28.8	173.2	55.9	67.7	39.1	
Level of Service	F	E	B	F	C		C	F	E	E	D	
Approach Delay (s)		84.7			67.6			138.3			41.5	
Approach LOS		F			E			F			D	

Intersection Summary			
HCM Average Control Delay	89.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	107.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3167	1417	1583	3041		1583	3167	1417	1583	3112	
Flt Permitted	0.19	1.00	1.00	0.07	1.00		0.25	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	311	3167	1417	123	3041		415	3167	1417	555	3112	
Volume (vph)	174	1296	154	117	649	233	119	607	227	159	686	88
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	185	1379	164	124	690	248	127	646	241	169	730	94
RTOR Reduction (vph)	0	0	75	0	30	0	0	0	9	0	8	0
Lane Group Flow (vph)	185	1379	89	124	908	0	127	646	232	169	816	0
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	52.1	52.1	52.1	52.1	52.1		56.5	56.5	56.5	56.5	56.5	
Effective Green, g (s)	54.0	54.0	54.0	54.0	54.0		58.0	58.0	58.0	58.0	58.0	
Actuated g/C Ratio	0.45	0.45	0.45	0.45	0.45		0.48	0.48	0.48	0.48	0.48	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.5	5.5	5.5	5.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	140	1425	638	55	1368		201	1531	685	268	1504	
v/s Ratio Prot		0.44			0.30			0.20			0.26	
v/s Ratio Perm	0.59		0.06	c1.00			c0.31		0.16	0.30		
v/c Ratio	1.32	0.97	0.14	2.25	0.66		0.63	0.42	0.34	0.63	0.54	
Uniform Delay, d1	33.0	32.2	19.4	33.0	25.9		23.1	20.1	19.2	23.0	21.7	
Progression Factor	1.11	1.12	1.97	0.60	0.56		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	149.3	2.8	0.0	604.4	1.9		14.2	0.9	1.3	10.8	1.4	
Delay (s)	186.0	38.8	38.1	624.1	16.4		37.2	21.0	20.5	33.8	23.1	
Level of Service	F	D	D	F	B		D	C	C	C	C	
Approach Delay (s)		54.5			87.3			22.9			24.9	
Approach LOS		D			F			C			C	

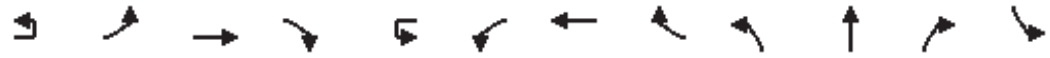
Intersection Summary			
HCM Average Control Delay	49.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3145		1583	3114		1583	1667	1417	1583	1615	
Flt Permitted	0.20	1.00		0.20	1.00		0.35	1.00	1.00	0.37	1.00	
Satd. Flow (perm)	327	3145		327	3114		585	1667	1417	618	1615	
Volume (vph)	85	1300	61	89	757	94	74	485	140	48	404	105
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	89	1354	64	93	789	98	77	505	146	50	421	109
RTOR Reduction (vph)	0	6	0	0	16	0	0	0	2	0	16	0
Lane Group Flow (vph)	89	1412	0	93	871	0	77	505	144	50	514	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	20.1	20.1		20.1	20.1		31.0	31.0	31.0	31.0	31.0	
Effective Green, g (s)	20.4	20.4		20.4	20.4		31.6	31.6	31.6	31.6	31.6	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.53	0.53	0.53	0.53	0.53	
Clearance Time (s)	4.3	4.3		4.3	4.3		4.6	4.6	4.6	4.6	4.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	111	1069		111	1059		308	878	746	325	851	
v/s Ratio Prot		c0.45			0.28			0.30			c0.32	
v/s Ratio Perm	0.27			0.28			0.13		0.10	0.08		
v/c Ratio	0.80	1.32		0.84	0.82		0.25	0.58	0.19	0.15	0.60	
Uniform Delay, d1	18.0	19.8		18.3	18.1		7.7	9.6	7.5	7.3	9.9	
Progression Factor	1.00	1.00		1.08	1.06		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	43.9	151.0		42.3	5.9		1.9	2.7	0.6	1.0	3.2	
Delay (s)	61.9	170.8		62.0	25.1		9.7	12.4	8.1	8.3	13.0	
Level of Service	E	F		E	C		A	B	A	A	B	
Approach Delay (s)		164.4			28.6			11.2			12.6	
Approach LOS		F			C			B			B	

Intersection Summary			
HCM Average Control Delay	76.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			0.99	
Flpb, ped/bikes	0.95	1.00		0.99	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			1.00			0.96	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1504	1660		1575	1656			1652			1581	
Flt Permitted	0.34	1.00		0.31	1.00			0.94			0.98	
Satd. Flow (perm)	540	1660		507	1656			1562			1554	
Volume (vph)	155	477	10	116	442	10	33	371	10	18	360	150
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	161	497	10	121	460	10	34	386	10	19	375	156
RTOR Reduction (vph)	0	1	0	0	1	0	0	2	0	0	24	0
Lane Group Flow (vph)	161	506	0	121	469	0	0	428	0	0	526	0
Confl. Peds. (#/hr)	66		13	13		66	21		26	26		21
Confl. Bikes (#/hr)			27			8						6
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	26.0	26.0		26.0	26.0			26.0			26.0	
Effective Green, g (s)	26.0	26.0		26.0	26.0			26.0			26.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43			0.43			0.43	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	234	719		220	718			677			673	
v/s Ratio Prot		c0.30			0.28							
v/s Ratio Perm	0.30			0.24				0.27			c0.34	
v/c Ratio	0.69	0.70		0.55	0.65			0.63			0.78	
Uniform Delay, d1	13.7	13.9		12.6	13.4			13.3			14.6	
Progression Factor	1.00	1.00		1.06	1.05			1.99			1.00	
Incremental Delay, d2	15.3	5.7		7.7	3.7			3.6			8.8	
Delay (s)	29.0	19.6		21.1	17.8			30.1			23.4	
Level of Service	C	B		C	B			C			C	
Approach Delay (s)		21.8			18.5			30.1			23.4	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.98		1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95
Satd. Flow (prot)		1583	4550	1417		1583	4550	1417	1583	1633		1583
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.13	1.00		0.36
Satd. Flow (perm)		1583	4550	1417		1583	4550	1417	219	1633		602
Volume (vph)	23	138	1652	45	10	75	1628	49	60	261	41	83
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	23	139	1669	45	10	76	1644	49	61	264	41	84
RTOR Reduction (vph)	0	0	0	21	0	0	0	27	0	5	0	0
Lane Group Flow (vph)	0	162	1669	24	0	86	1644	22	61	300	0	84
Turn Type	Prot	Prot		Perm	Prot	Prot		pm+ov	pm+pt			pm+pt
Protected Phases	1	1	6		5	5	2	7	3	8		7
Permitted Phases				6				2	8			4
Actuated Green, G (s)		16.1	48.2	48.2		10.4	42.5	50.4	41.6	34.5		43.2
Effective Green, g (s)		16.1	49.2	49.2		10.4	43.5	51.4	43.6	36.5		45.2
Actuated g/C Ratio		0.13	0.41	0.41		0.09	0.36	0.43	0.36	0.30		0.38
Clearance Time (s)		4.0	5.0	5.0		4.0	5.0	4.0	4.0	6.0		4.0
Vehicle Extension (s)		3.0	4.4	4.4		3.0	4.3	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)		212	1866	581		137	1649	654	160	497		291
v/s Ratio Prot		c0.10	0.37			0.05	c0.36	0.00	c0.02	0.18		0.02
v/s Ratio Perm				0.02				0.01	0.12			0.09
v/c Ratio		0.76	0.89	0.04		0.63	1.00	0.03	0.38	0.60		0.29
Uniform Delay, d1		50.1	33.0	21.3		52.9	38.2	19.9	28.5	35.6		25.5
Progression Factor		1.00	1.00	1.00		0.81	1.66	3.78	1.00	1.00		0.99
Incremental Delay, d2		15.0	7.1	0.1		6.7	18.7	0.0	1.5	2.1		0.4
Delay (s)		65.2	40.1	21.4		49.6	82.0	75.2	30.0	37.7		25.6
Level of Service		E	D	C		D	F	E	C	D		C
Approach Delay (s)			41.8				80.3			36.4		
Approach LOS			D				F			D		

Intersection Summary			
HCM Average Control Delay	58.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1700	1700
Total Lost time (s)	4.0	
Lane Util. Factor	1.00	
Frt	0.98	
Flt Protected	1.00	
Satd. Flow (prot)	1641	
Flt Permitted	1.00	
Satd. Flow (perm)	1641	
Volume (vph)	440	50
Peak-hour factor, PHF	0.99	0.99
Adj. Flow (vph)	444	51
RTOR Reduction (vph)	3	0
Lane Group Flow (vph)	492	0
Turn Type		
Protected Phases	4	
Permitted Phases		
Actuated Green, G (s)	35.3	
Effective Green, g (s)	37.3	
Actuated g/C Ratio	0.31	
Clearance Time (s)	6.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	510	
v/s Ratio Prot	c0.30	
v/s Ratio Perm		
v/c Ratio	0.96	
Uniform Delay, d1	40.7	
Progression Factor	0.99	
Incremental Delay, d2	26.0	
Delay (s)	66.3	
Level of Service	E	
Approach Delay (s)	60.4	
Approach LOS	E	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.98	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1565	1655		1564	1638		1556	3066		1583	3048	
Flt Permitted	0.32	1.00		0.33	1.00		0.24	1.00		0.12	1.00	
Satd. Flow (perm)	523	1655		542	1638		387	3066		203	3048	
Volume (vph)	104	493	17	83	480	44	108	875	154	52	651	118
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	106	503	17	85	490	45	110	893	157	53	664	120
RTOR Reduction (vph)	0	1	0	0	4	0	0	16	0	0	16	0
Lane Group Flow (vph)	106	519	0	85	531	0	110	1034	0	53	768	0
Confl. Peds. (#/hr)	29		30	30		29	48		28	28		48
Confl. Bikes (#/hr)			26			9			4			2
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	45.0	45.0		45.0	45.0		35.1	35.1		35.1	35.1	
Effective Green, g (s)	46.0	46.0		46.0	46.0		36.0	36.0		36.0	36.0	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.40	0.40		0.40	0.40	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.9	4.9		4.9	4.9	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	267	846		277	837		155	1226		81	1219	
v/s Ratio Prot		0.31			c0.32			c0.34			0.25	
v/s Ratio Perm	0.20			0.16			0.28			0.26		
v/c Ratio	0.40	0.61		0.31	0.63		0.71	0.84		0.65	0.63	
Uniform Delay, d1	13.5	15.7		12.8	15.9		22.6	24.5		21.9	21.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.4	3.3		2.9	3.7		24.0	7.2		34.4	2.5	
Delay (s)	17.9	19.0		15.6	19.6		46.6	31.6		56.4	24.1	
Level of Service	B	B		B	B		D	C		E	C	
Approach Delay (s)		18.8			19.0			33.1			26.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	4550	1417		1583	4550	1417	1583	3167	1417	1583	3167
Flt Permitted	0.95	1.00	1.00		0.95	1.00	1.00	0.26	1.00	1.00	0.19	1.00
Satd. Flow (perm)	1583	4550	1417		1583	4550	1417	434	3167	1417	319	3167
Volume (vph)	147	1193	261	21	155	1061	114	173	733	231	78	562
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	156	1269	278	22	165	1129	121	184	780	246	83	598
RTOR Reduction (vph)	0	0	76	0	0	0	86	0	0	165	0	0
Lane Group Flow (vph)	156	1269	202	0	187	1129	35	184	780	81	83	598
Turn Type	Prot		pm+ov	Prot	Prot		Perm	pm+pt		Perm	pm+pt	
Protected Phases	1	6	3	5	5	2		3	8		7	4
Permitted Phases			6				2	8		8	4	
Actuated Green, G (s)	18.0	34.5	43.5		14.0	30.5	30.5	43.0	34.0	34.0	39.0	32.0
Effective Green, g (s)	18.0	35.8	45.8		14.0	31.8	31.8	46.2	36.2	36.2	42.2	34.2
Actuated g/C Ratio	0.16	0.33	0.42		0.13	0.29	0.29	0.42	0.33	0.33	0.38	0.31
Clearance Time (s)	4.0	5.3	5.0		4.0	5.3	5.3	5.0	6.2	6.2	5.0	6.2
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	4.2	4.2	3.0	3.6
Lane Grp Cap (vph)	259	1481	642		201	1315	410	287	1042	466	214	985
v/s Ratio Prot	0.10	c0.28	0.03		0.12	c0.25		c0.06	c0.25		0.03	0.19
v/s Ratio Perm			0.11				0.02	0.21		0.06	0.12	
v/c Ratio	0.60	0.86	0.31		0.93	0.86	0.09	0.64	0.75	0.17	0.39	0.61
Uniform Delay, d1	42.7	34.7	21.6		47.5	37.0	28.5	22.1	32.8	26.3	23.4	32.2
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	6.6	0.3		44.1	7.4	0.4	4.8	3.3	0.3	1.2	1.1
Delay (s)	46.6	41.3	21.8		91.6	44.4	28.9	27.0	36.1	26.5	24.5	33.3
Level of Service	D	D	C		F	D	C	C	D	C	C	C
Approach Delay (s)		38.6				49.3			32.8			29.3
Approach LOS		D				D			C			C

Intersection Summary			
HCM Average Control Delay	38.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1700
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1417
Flt Permitted	1.00
Satd. Flow (perm)	1417
Volume (vph)	152
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	162
RTOR Reduction (vph)	47
Lane Group Flow (vph)	115
Turn Type	pm+ov
Protected Phases	1
Permitted Phases	4
Actuated Green, G (s)	50.0
Effective Green, g (s)	52.2
Actuated g/C Ratio	0.47
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	672
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.17
Uniform Delay, d1	16.5
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	16.6
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.86	1.00	0.86	0.81	0.86			
Frt	1.00	1.00			1.00	0.85	1.00	0.97	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3072	4550			5733	1417	1362	3916	1218			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3072	4550			5733	1417	1362	3916	1218			
Volume (vph)	564	1445	0	0	1051	319	657	887	638	0	0	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	606	1554	0	0	1130	343	706	954	686	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	20	20	0	0	0
Lane Group Flow (vph)	606	1554	0	0	1130	328	469	1411	426	0	0	0
Turn Type	Prot					Perm	Split		Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases						2			4			
Actuated Green, G (s)	25.0	70.0			41.0	41.0	39.2	39.2	39.2			
Effective Green, g (s)	25.0	71.0			42.0	42.0	41.0	41.0	41.0			
Actuated g/C Ratio	0.21	0.59			0.35	0.35	0.34	0.34	0.34			
Clearance Time (s)	4.0	5.0			5.0	5.0	5.8	5.8	5.8			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	640	2692			2007	496	465	1338	416			
v/s Ratio Prot	c0.20	0.34			0.20		0.34	c0.36				
v/s Ratio Perm						c0.23			0.35			
v/c Ratio	0.95	0.58			0.56	0.66	1.01	1.05	1.02			
Uniform Delay, d1	46.8	15.2			31.6	33.0	39.5	39.5	39.5			
Progression Factor	0.97	1.26			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	19.2	0.7			1.1	6.8	43.9	40.3	50.1			
Delay (s)	64.9	19.8			32.7	39.8	83.4	79.8	89.6			
Level of Service	E	B			C	D	F	E	F			
Approach Delay (s)		32.5			34.4			82.4			0.0	
Approach LOS		C			C			F			A	

Intersection Summary			
HCM Average Control Delay	52.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.81		0.97	0.91					0.91	0.86	0.91
Frt		0.97		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.98	1.00
Satd. Flow (prot)		6542		3072	4550					1441	2805	1289
Flt Permitted		1.00		0.95	1.00					0.95	0.98	1.00
Satd. Flow (perm)		6542		3072	4550					1441	2805	1289
Volume (vph)	0	1231	319	660	1217	0	0	0	0	598	352	257
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1282	332	688	1268	0	0	0	0	623	367	268
RTOR Reduction (vph)	0	38	0	0	0	0	0	0	0	0	0	54
Lane Group Flow (vph)	0	1576	0	688	1268	0	0	0	0	331	659	214
Turn Type				Prot						Split		Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		41.8		30.4	76.7					33.6	33.6	33.6
Effective Green, g (s)		42.5		30.9	77.4					34.6	34.6	34.6
Actuated g/C Ratio		0.35		0.26	0.65					0.29	0.29	0.29
Clearance Time (s)		4.7		4.5	4.7					5.0	5.0	5.0
Vehicle Extension (s)		3.0		4.0	3.0					4.0	4.0	4.0
Lane Grp Cap (vph)		2317		791	2935					415	809	372
v/s Ratio Prot		c0.24		c0.22	0.28					0.23	c0.23	
v/s Ratio Perm												0.17
v/c Ratio		0.68		0.87	0.43					0.80	0.81	0.58
Uniform Delay, d1		33.0		42.6	10.5					39.5	39.7	36.4
Progression Factor		1.00		0.54	1.53					1.00	1.00	1.00
Incremental Delay, d2		1.6		7.6	0.3					10.8	6.6	2.6
Delay (s)		34.6		30.7	16.4					50.3	46.4	39.0
Level of Service		C		C	B					D	D	D
Approach Delay (s)		34.6			21.4			0.0			45.8	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.99			0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1573	1614		1561	1649			1549			1608	
Flt Permitted	0.32	1.00		0.27	1.00			0.70			0.93	
Satd. Flow (perm)	524	1614		447	1649			1098			1498	
Volume (vph)	33	504	75	65	499	27	99	125	107	55	322	63
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	536	80	69	531	29	105	133	114	59	343	67
RTOR Reduction (vph)	0	8	0	0	3	0	0	32	0	0	11	0
Lane Group Flow (vph)	35	608	0	69	557	0	0	320	0	0	458	0
Confl. Peds. (#/hr)	10		27	27		10	17		16	16		17
Confl. Bikes (#/hr)			30			16			3			10
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	30.6	30.6		30.6	30.6			21.4			21.4	
Effective Green, g (s)	30.6	30.6		30.6	30.6			21.4			21.4	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.36			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	267	823		228	841			392			534	
v/s Ratio Prot		c0.38			0.34							
v/s Ratio Perm	0.07			0.15				0.29			c0.31	
v/c Ratio	0.13	0.74		0.30	0.66			0.82			0.86	
Uniform Delay, d1	7.7	11.6		8.5	10.9			17.5			17.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	5.9		3.4	4.1			12.4			12.9	
Delay (s)	8.7	17.5		11.9	15.0			30.0			30.8	
Level of Service	A	B		B	B			C			C	
Approach Delay (s)		17.0			14.6			30.0			30.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	4534		1583	4476		1583	1611		1583	1635	
Flt Permitted	0.23	1.00		0.23	1.00		0.12	1.00		0.48	1.00	
Satd. Flow (perm)	382	4534		386	4476		201	1611		792	1635	
Volume (vph)	57	984	24	40	907	110	40	174	50	88	417	61
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	59	1025	25	42	945	115	42	181	52	92	434	64
RTOR Reduction (vph)	0	2	0	0	13	0	0	8	0	0	4	0
Lane Group Flow (vph)	59	1048	0	42	1047	0	42	225	0	92	494	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	74.6	74.6		74.6	74.6		36.0	36.0		36.0	36.0	
Effective Green, g (s)	75.0	75.0		75.0	75.0		37.0	37.0		37.0	37.0	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.31	0.31		0.31	0.31	
Clearance Time (s)	4.4	4.4		4.4	4.4		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	239	2834		241	2798		62	497		244	504	
v/s Ratio Prot		0.23			c0.23			0.14			c0.30	
v/s Ratio Perm	0.15			0.11			0.21			0.12		
v/c Ratio	0.25	0.37		0.17	0.37		0.68	0.45		0.38	0.98	
Uniform Delay, d1	10.0	11.0		9.5	11.0		36.3	33.4		32.5	41.1	
Progression Factor	1.32	1.35		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.3		1.6	0.4		25.5	0.7		1.0	34.5	
Delay (s)	15.1	15.1		11.0	11.4		61.8	34.0		33.5	75.6	
Level of Service	B	B		B	B		E	C		C	E	
Approach Delay (s)		15.1			11.4			38.3			69.0	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			