LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
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E-mail: lsc@lscdenver.com

May 4, 2017

Mr. Patrick Johnson
TranorHL
1755 Blake Street, Suite 400
Denver, CO 80202

Re: Summit High School Expansion
Breckenridge, CO
LSC #170160

Dear Mr. Johnson:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Summit High School expansion. As shown on Figure 1, the school is located west of the State Highway 9/Summit High School Drive/Swan Mountain Road intersection on the north side of Breckenridge, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways for two access scenarios; the projected long-term background and resulting total traffic volumes on the area roadways for two access scenarios; recommendations to mitigate growth in background traffic and the impact of the proposed expansion.

LAND USE AND ACCESS

The high school capacity is proposed to be expanded by 485 students from a current enrollment of 915 students to a capacity of 1,400 students. To be conservative, full occupancy is assumed by 2020. Scenario 1 assumes Alpensee Drive remains one-way northbound and Scenario 2 assumes it is converted to two-way. Figure 2 shows the conceptual site plan. The applicant has determined that Scenario 2 is their preferred option.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **State Highway 9** is a north-south, four-lane regional highway east of the site. The intersection with Summit High School Drive/Swan Mountain Road is signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site is 50 mph.

- **Summit High School Drive** is an east-west, four-lane collector roadway connecting the site to SH 9. The intersection with State Highway 9 is signalized with auxiliary turn lanes. The posted speed limit in the vicinity of the site is 35 mph.

- **Alpensee Drive** is a north-south, one-way northbound local road connecting Summit High School Drive with Jarelle Drive. There is no posted speed limit adjacent to the site.

- **Jarelle Drive** is an east-west, two-lane connector street between Alpensee Drive and SH 9. The intersection with SH 9 is unsignalized, but has a full compliment of acceleration and deceleration lanes. There is no posted speed limit near the site.

Existing Traffic Conditions

Figure 3 shows the existing traffic volumes, lane geometries and traffic controls in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes are from the attached traffic counts conducted by Counter Measures in February, 2016. The daily traffic volumes are based on seasonal data provided by CDOT.

2020 and 2037 Background Traffic

Figure 4a shows the estimated Scenario 1 2020 background traffic and Figure 4b shows the estimated Scenario 2 2020 background traffic. 5a shows the estimated 2037 Scenario 1 2037 background traffic and Figure 5b shows the estimated Scenario 2 2037 background traffic. The background traffic volumes are based on an annual growth rate of about one percent based on the CDOT 20-year growth factor of 1.22.

Existing, 2020, and 2037 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in the study area were analyzed to determine the existing, 2020 background, and 2037 background levels of service for both scenarios using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- **State Highway 9/Summit High School Drive:** This signalized intersection currently operates at an overall LOS "C" during both morning and afternoon peak-hours and is expected to do so through 2037 in either scenario.

- **State Highway 9/Jarelle Drive:** All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours with the exception of the eastbound left-turn movement which operates at LOS "E" during the morning peak-hour and LOS "C" during the afternoon peak-hour. By 2037, this movement

is expected to operate at LOS "F" during the morning peak-hour and LOS "D" during the afternoon peak-hour in either scenario.

- **Jarrelle Drive/Farmers Lane:** All movements at this unsignalized intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better during peak-hours through 2037 in either scenario.

- **Jarrelle Drive/Alpensee Drive:** All movements at this all-way stop controlled intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to do so through 2037 in either scenario.

- **Summit High School Drive/Alpensee Drive:** This roundabout controlled intersection currently operates at LOS "A" during both morning and afternoon peak-hours and is expected to do so through 2037 in either scenario.

TRIP GENERATION

Table 2 shows the estimated typical weekday, morning peak-hour, and afternoon peak-hour trip generation for the expansion based on the rates from *Trip Generation, 9th Edition,* 2012, by the Institute of Transportation Engineers (ITE).

The expansion of the high school site by 485 students is projected to generate about 829 additional vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 7:15 and 8:15 a.m. (7:45 a.m. school start time), about 142 additional vehicles would enter and about 67 additional vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 2:45 and 3:45 p.m. (2:55 p.m. school end time), about 46 additional vehicles would enter and about 94 additional vehicles would exit the site.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; the site's proposed land use; and the existing traffic counts.

TRIP ASSIGNMENT

Figure 7a shows the estimated Scenario 1 weekday site-generated traffic volumes based on the directional distribution percentages (from Figure 6), the trip generation estimate (from Table 2), and a one-way Alpensee Street.

Figure 7b shows the estimated Scenario 2 weekday site-generated traffic volumes based on the directional distribution percentages (from Figure 6), the trip generation estimate (from Table 2), and a two-way Alpensee Street.

2020 AND 2037 TOTAL TRAFFIC

Figure 8a shows the Scenario 1 2020 weekday total traffic which is the sum of the Scenario 1 2020 background traffic volumes (from Figure 4a) and the Scenario 1 site-generated traffic volumes (from Figure 7a). Figure 8a also shows the recommended 2020 lane geometry and traffic control for Scenario 1.

Figure 8b shows the Scenario 2 2020 weekday total traffic which is the sum of the Scenario 2 2020 background traffic volumes (from Figure 4b) and the Scenario 2 site-generated traffic volumes (from Figure 7b). Figure 8b also shows the recommended 2020 lane geometry and traffic control for Scenario 2.

Figure 9a shows the Scenario 1 2037 weekday total traffic which is the sum of the Scenario 1 2037 background traffic volumes (from Figure 5a) and the Scenario 1 site-generated traffic volumes (from Figure 7a). Figure 9a also shows the recommended 2037 lane geometry and traffic control for Scenario 1.

Figure 9b shows the Scenario 2 2037 weekday total traffic which is the sum of the Scenario 2 2037 background traffic volumes (from Figure 5b) and the Scenario 2 site-generated traffic volumes (from Figure 7b). Figure 9b also shows the recommended 2037 lane geometry and traffic control for Scenario 2.

PROJECTED LEVELS OF SERVICE

The intersections in the study area were analyzed to determine the 2020 and 2037 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- **State Highway 9/Summit High School Drive:** This signalized intersection is expected to operate at an overall LOS "C" during both morning and afternoon peak-hours through 2037 in either scenario.

- **State Highway 9/Jarelle Drive:** All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours with the exception of the eastbound left-turn movement which is expected to operate at LOS "E" during the morning peak-hour in 2020 and LOS "F" in the morning peak-hour in 2037 in either scenario.

- **Jarrelle Drive/Farmers Lane:** All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2037 in either scenario.

- **Jarrelle Drive/Alpensee Drive:** All movements at this all-way stop controlled intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2037 in either scenario.

- **Summit High School Drive/Alpensee Drive:** This roundabout controlled intersection is expected to operate at LOS "A" during both morning and afternoon peak-hours through 2037 in either scenario.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The expansion of the high school site is projected to generate about 829 additional vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 142 additional vehicles would enter and about 67 additional vehicles would exit the site. During the afternoon peak-hour, about 46 additional vehicles would enter and about 94 additional vehicles would exit the site.

Projected Levels of Service

2. The signalized State Highway 9/Summit High School Drive intersection is expected to operate at LOS "C" with all movements operating at LOS "D" or better through 2037 with the recommended mitigation which including shifting one to three seconds from the eastbound/westbound through/right movements to the eastbound/westbound left-turn movements.

3. All movements at the unsignalized intersections are expected to operate at LOS "C" or better through 2037 in either scenario with the exception of the eastbound left-turn movement which is expected to operate at LOS "E" during the morning peak-hour in 2020 and LOS "F" in the morning peak-hour in 2037. No site traffic is expected to make this movement.

Preferred Access Scenario

4. The eastbound left-turn movement from Summit High School Drive to SH 9 is expected to have similar delay in either scenario. Scenario 2 is preferred because it is expected to have considerably less stacking on Summit High School Drive approaching SH 9 because the conversion of Alpensee Drive to a two-way street will allow a majority of existing school trips headed south on SH 9 to use Alpensee Drive and Jarelle Drive and remove those vehicles from the queue on Summit High School Drive between SH 9 and the existing roundabout.

Conclusions

5. The impact of the proposed high school expansion can be mitigated by the following recommended improvements:

Recommendations

6. Access Scenario 2 is recommended as it will provide two options to exit the site and reduce queue lengths on Summit High School Drive approaching SH 9.

7. Consideration should be given to shifting one to three seconds of green time from the eastbound and westbound through/right movements to the eastbound/westbound left-turn

movements at the signalized State Highway 9/Summit Drive School Drive/Swan Mountain Road intersection.

* * * * *

We trust our findings will assist you in gaining approval of the proposed Summit High School expansion. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

COLORADO LICENSED
CHRISTOPHER S. MCGRANAHAN
39018
PROFESSIONAL ENGINEER

By_____
Christopher S. McGranahan, PE, PTOE
Principal

5-4-17

CSM/wc

Enclosures: Tables 1 and 2
Figures 1 - 9b
Traffic Count Reports
Level of Service Definitions
Level of Service Reports

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Table 1
Intersection Levels of Service Analysis
Summit High School
Breckenridge, CO
LSC #170160; May, 2017

Intersection Location	Traffic Control	Existing Traffic		2020 Background Scenario 1		2020 Background Scenario 2		2020 Total Scenario 1		2020 Total Scenario 1 Mitigated	2020 Total Scenario 2		2020 Total Scenario 2 Mitigated		2037 Background Scenario 1		2037 Background Scenario 2		2037 Total Scenario 1		2037 Total Scenario 1 Mitigated	2037 Total Scenario 2		2037 Total Scenario 1 Mitigated	
		Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM
Highway 9/Summit High School Drive/ Swan Mtn. Rd	Signalized																								
EB Left		D	D	D	D	D	D	E	D	D	E	F	D	D	D	C	D	D	E	D	D	E	F	D	D
EB Through		D	D	D	D	D	D	D	C	C	D	D	C	D	D	D	D	D	D	C	D	D	D	D	D
EB Right		D	D	D	D	D	D	D	D	D	C	D	C	D	D	D	D	D	D	D	D	D	D	C	D
WB Left		C	D	C	D	C	D	C	C	C	C	D	C	D	C	C	C	D	C	C	C	C	D	C	D
WB Through/Right		D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
NB Left		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
NB Through		B	B	B	B	B	B	C	B	C	B	B	C	B	C	B	C	B	C	C	C	C	B	C	B
NB Right		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
SB Left		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
SB Through/Right		B	B	B	B	B	B	C	B	C	C	B	C	B	C	B	C	B	C	C	C	C	B	C	B
Entire Intersection Delay (sec /veh)		24.4	22.4	24.9	22.6	24.4	20.9	28.9	26.8	28.2	28.7	28.8	27.9	25.3	26.1	23.3	25.6	21.5	30.0	27.3	29.5	29.7	28.5	29.2	25.8
Entire Intersection LOS		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Highway 9/Jarelle Drive	TWSC																								
NB Left		B	B	B	B	B	A	B	B		B	B			B	B	B	B	C	B		C	B		
EB Left		E	C	E	C	E	C	E	C		E	C			F	D	F	D	F	D		F	D		
EB Right		B	B	B	B	B	B	B	B		B	B			C	B	C	B	C	B		C	B		
Critical Movement Delay		35.2	21.4	37.3	22.2	35.5	21.0	44.3	23.3		40.5	21.6			53.1	27.1	50.2	25.4	65.5	28.5		59.4	26.3		
Jarrelle Drive/Farmers Lane	TWSC																								
NB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
EB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
WB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
SB Approach		B	A	B	A	B	A	B	A		B	A			B	A	B	A	B	A		B	A		
Critical Movement Delay		11.2	9.1	11.3	9.1	12.1	9.6	12.0	9.2		13.3	9.8			11.5	9.2	12.4	9.6	12.2	9.3		13.6	9.9		
Jarrelle Drive/Alpensee Drive	AWSC																								
NB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
WB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
SB Approach		--	--	--	--	A	A	--	--		A	A			--	--	A	A	--	--		A	A		
Critical Movement Delay		7.7	6.7	7.9	6.7	8.6	7.9	8.5	6.7		9.5	8.3			8.1	6.8	8.7	7.9	8.7	6.8		9.9	8.3		
Summit High School Drive/Alpensee Dr.	Roundabout																								
EB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
WB Approach		A	A	A	A	A	A	B	A		B	A			A	A	A	A	B	A		B	A		
NB Approach		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		
Entire Intersection Delay (sec /veh)		6.8	5.0	6.9	5.1	6.8	4.2	9.3	6.6		9.2	5.0			6.9	5.1	6.8	4.2	9.3	6.6		9.2	5.0		
Entire Intersection LOS		A	A	A	A	A	A	A	A		A	A			A	A	A	A	A	A		A	A		

Table 2
ESTIMATED TRAFFIC GENERATION
Summit High School
Breckenridge, CO
LSC #170160; May, 2017

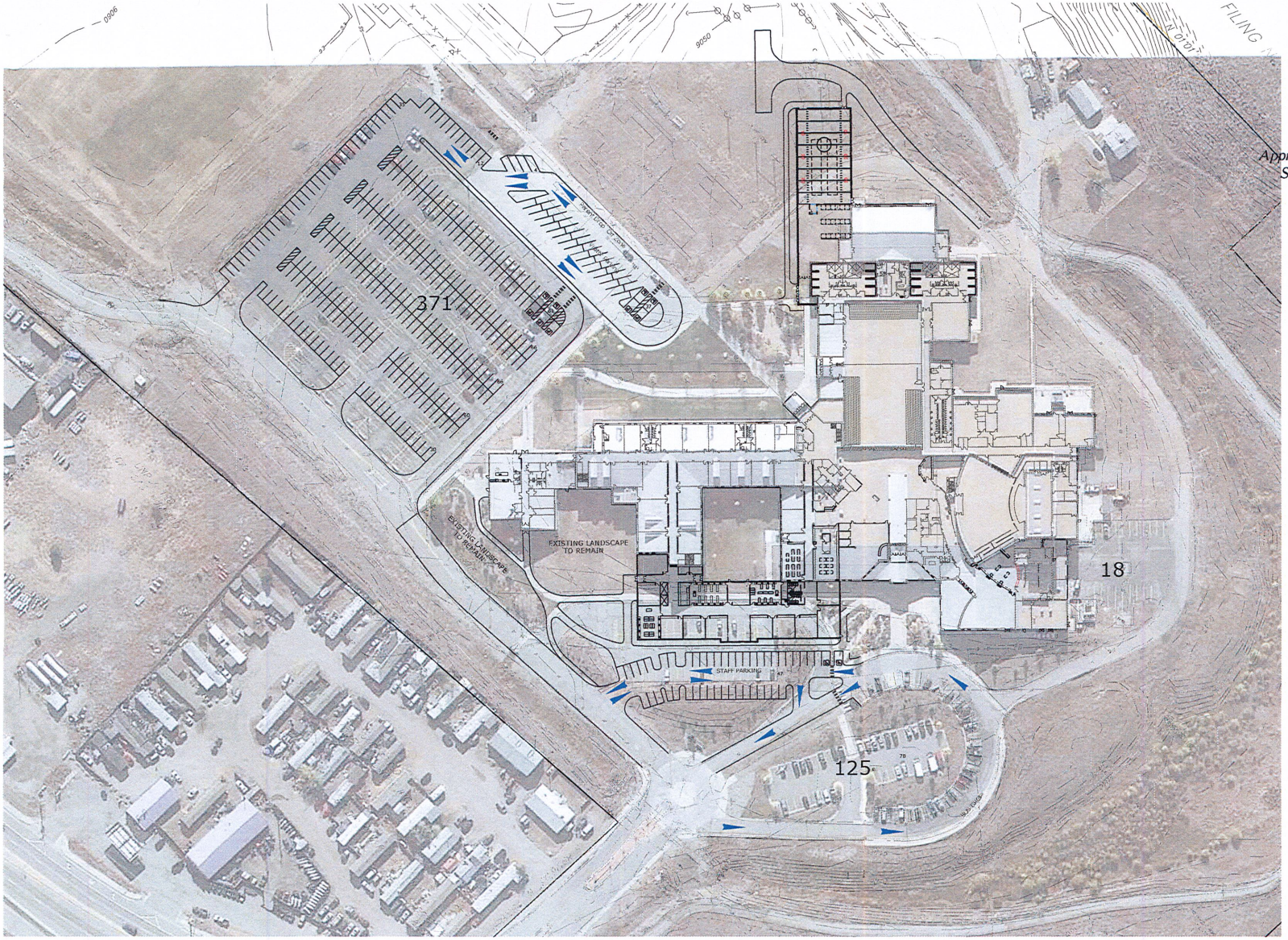
Land Use Description	Trip Generation Units	Trip Generation Rates (1) Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM School Peak In	PM School Peak Out	Total Trips Generated Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM School Peak In	PM School Peak Out
Existing Campus Enrollment											
High School (2)	915 Students	1.71	0.292	0.138	0.096	0.194	1,565	267	126	88	178
Proposed Campus Capacity											
High School (2)	1400 Students	1.71	0.292	0.138	0.096	0.194	2,394	409	193	134	272
			Net Increase in Trips Generated =				**829**	**142**	**67**	**46**	**94**

Notes:
(1) Source: *Trip Generation*, Institute of Transportation Engineers, 9th Edition, 2012.
(2) ITE Land Use No. 530 - High School

Figure 1

Vicinity Map

Summit High School (LSC #170160)



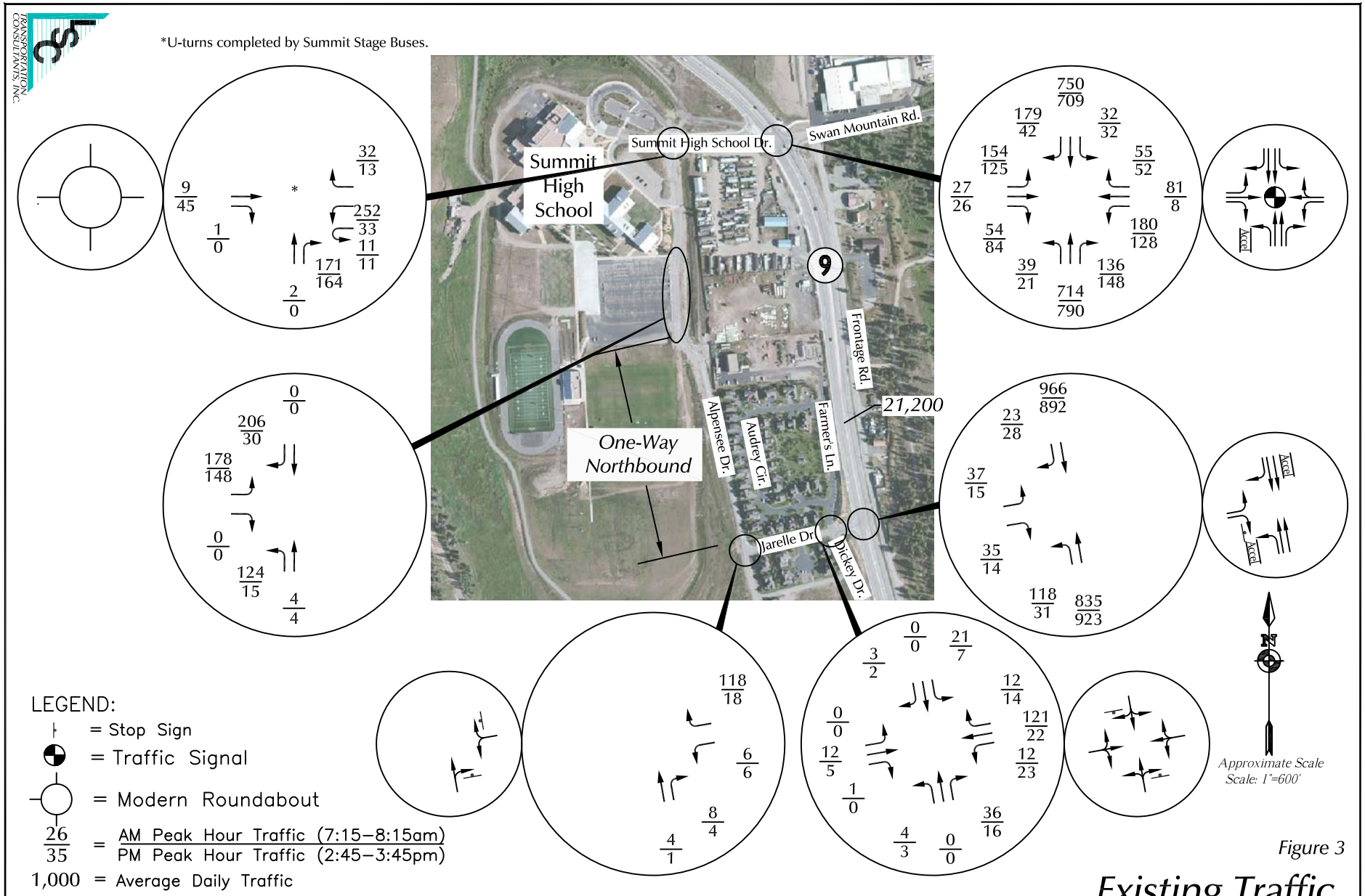
Approximate Scale
Scale: NTS

TRANSPORTATION CONSULTANTS, INC.

Figure 2

Site Plan

Summit High School (LSC #170160)



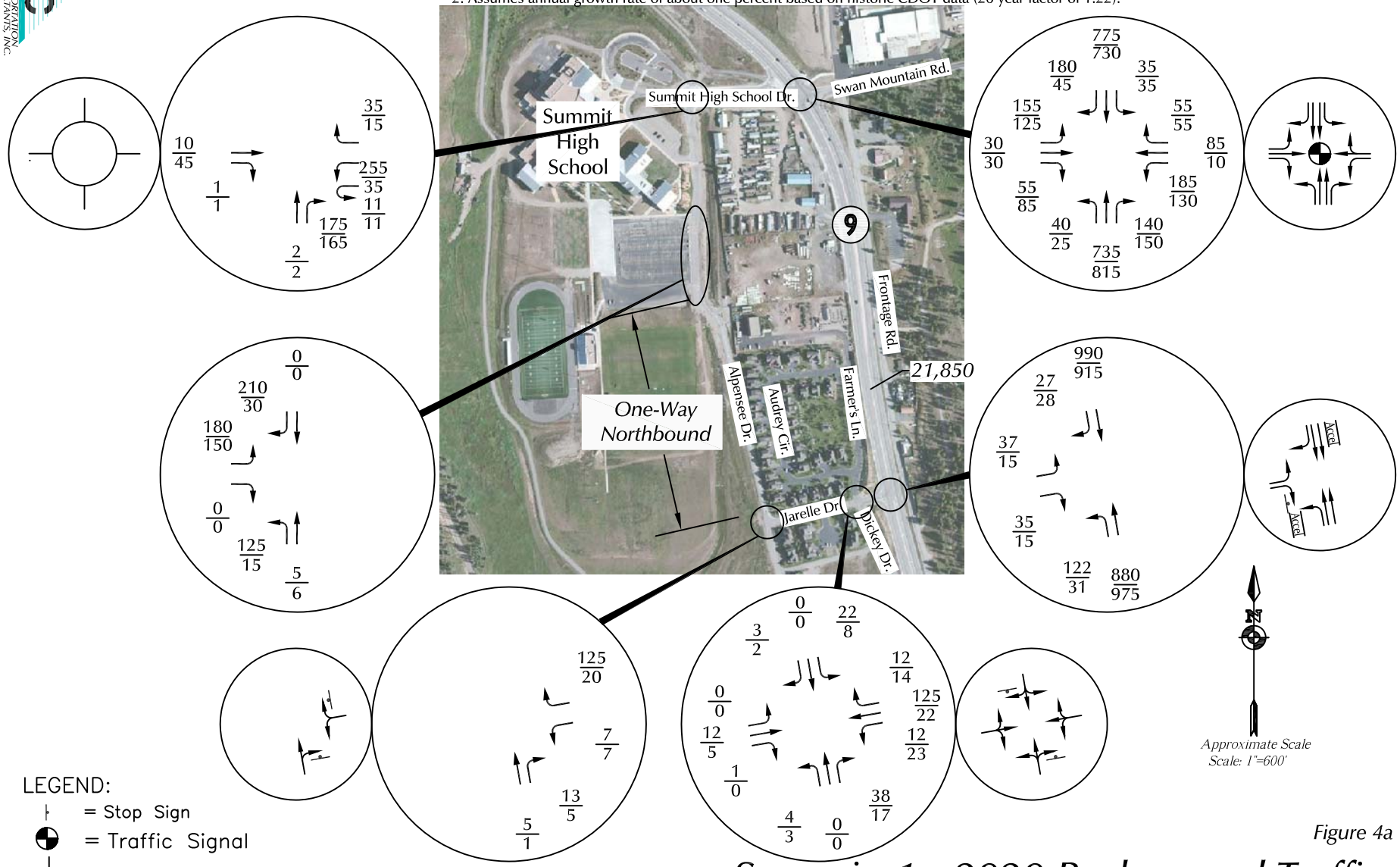
Note: The peak hour traffic counts were conducted in late February. Seasonal variations in SH 9 traffic volumes were provided by CDOT and show February and March have similar traffic volumes and are the highest volume months other than July and August when school is typically not in session. Therefore no seasonal adjustments were made to the traffic counts.

Figure 3

Existing Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)

Notes:
1. Scenario 1 assumes Alpensee Drive remains one-way northbound.
2. Assumes annual growth rate of about one percent based on historic CDOT data (20 year factor of 1.22).



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

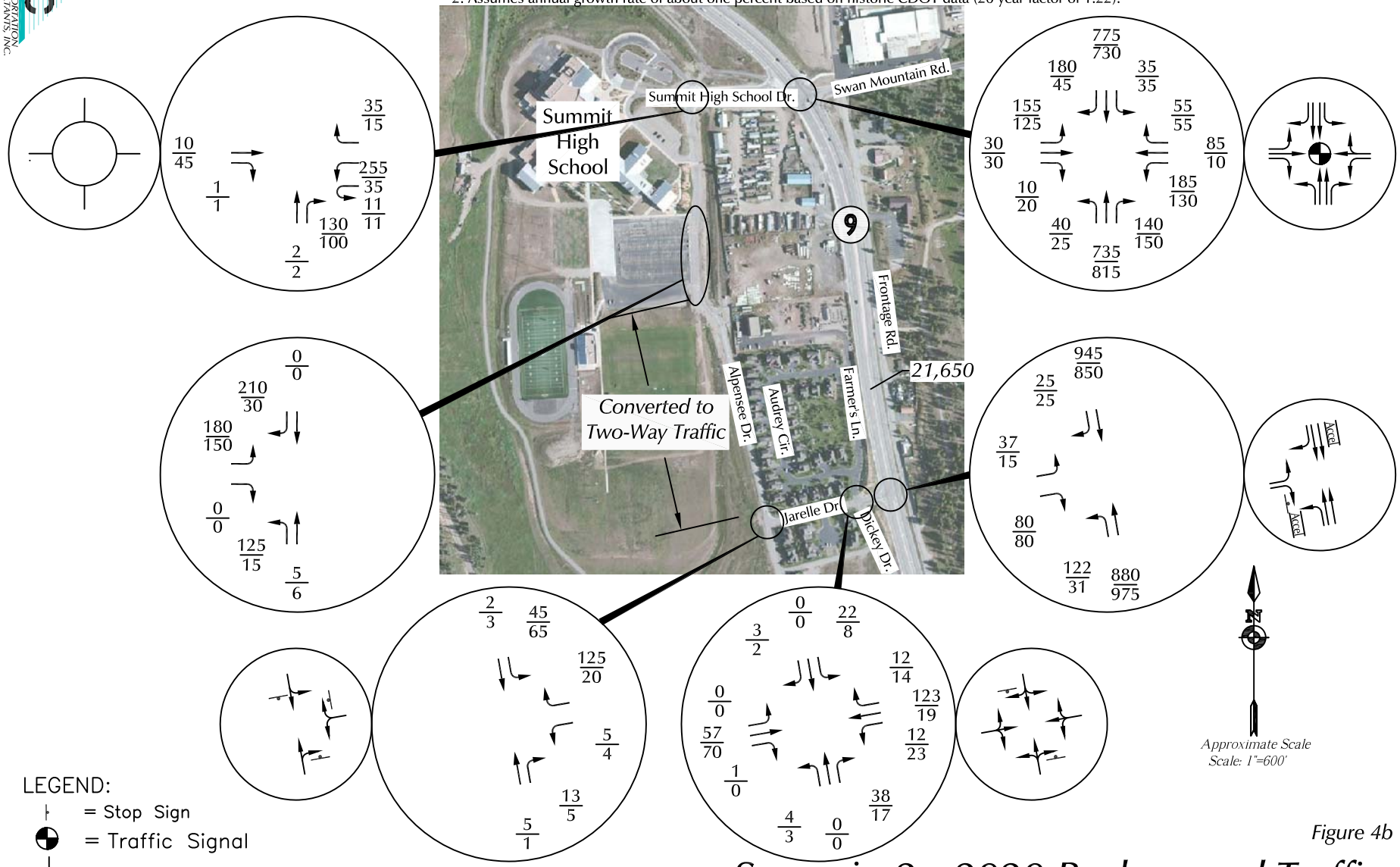
1,000 = Average Daily Traffic

Figure 4a

Scenario 1 - 2020 Background Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)

Notes:
1. Scenario 2 assumes Alpensee Drive is converted to two-way.
2. Assumes annual growth rate of about one percent based on historic CDOT data (20 year factor of 1.22).



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

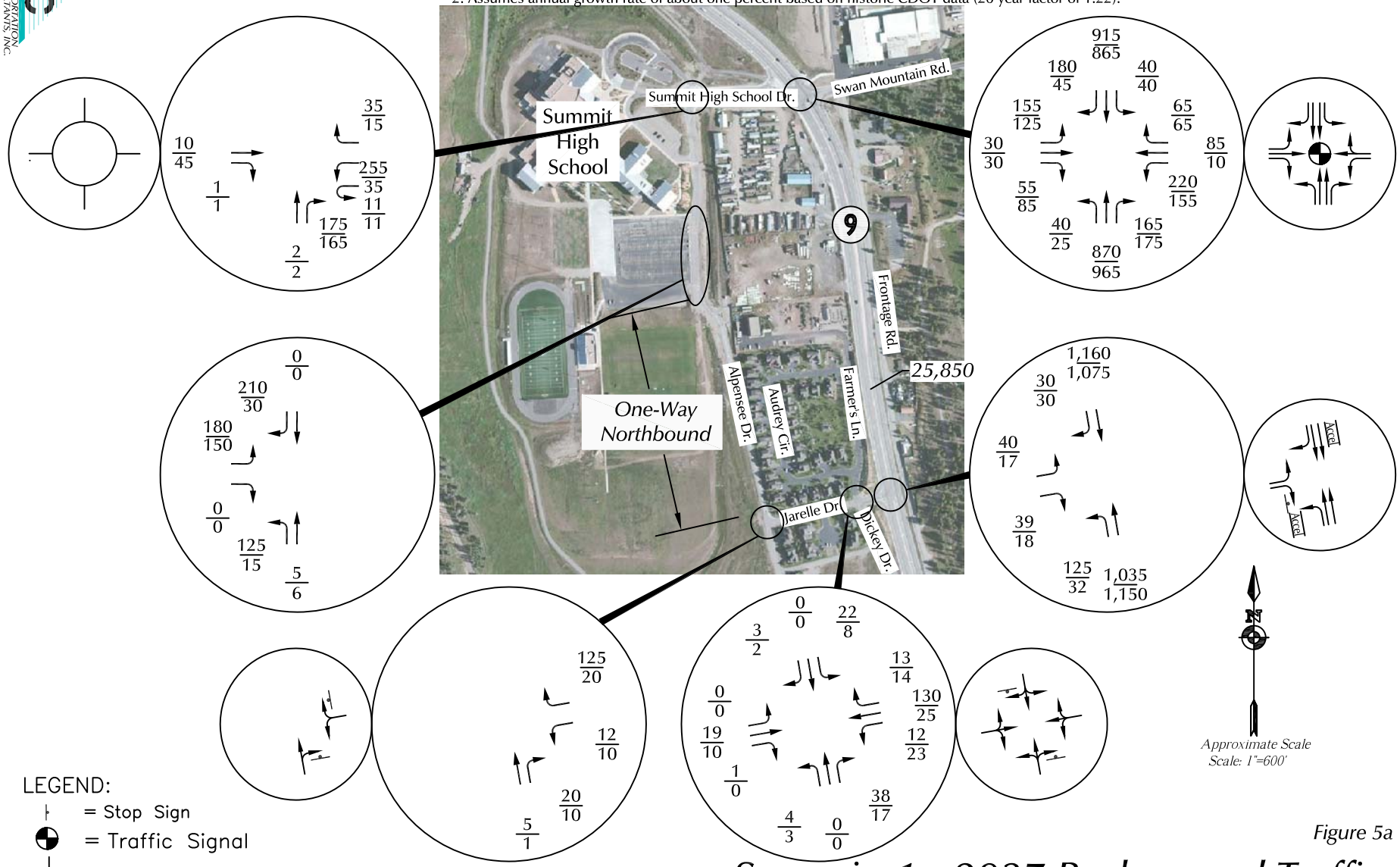
1,000 = Average Daily Traffic

Figure 4b

Scenario 2 - 2020 Background Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)

Notes:
1. Scenario 1 assumes Alpensee Drive remains one-way northbound.
2. Assumes annual growth rate of about one percent based on historic CDOT data (20 year factor of 1.22).



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

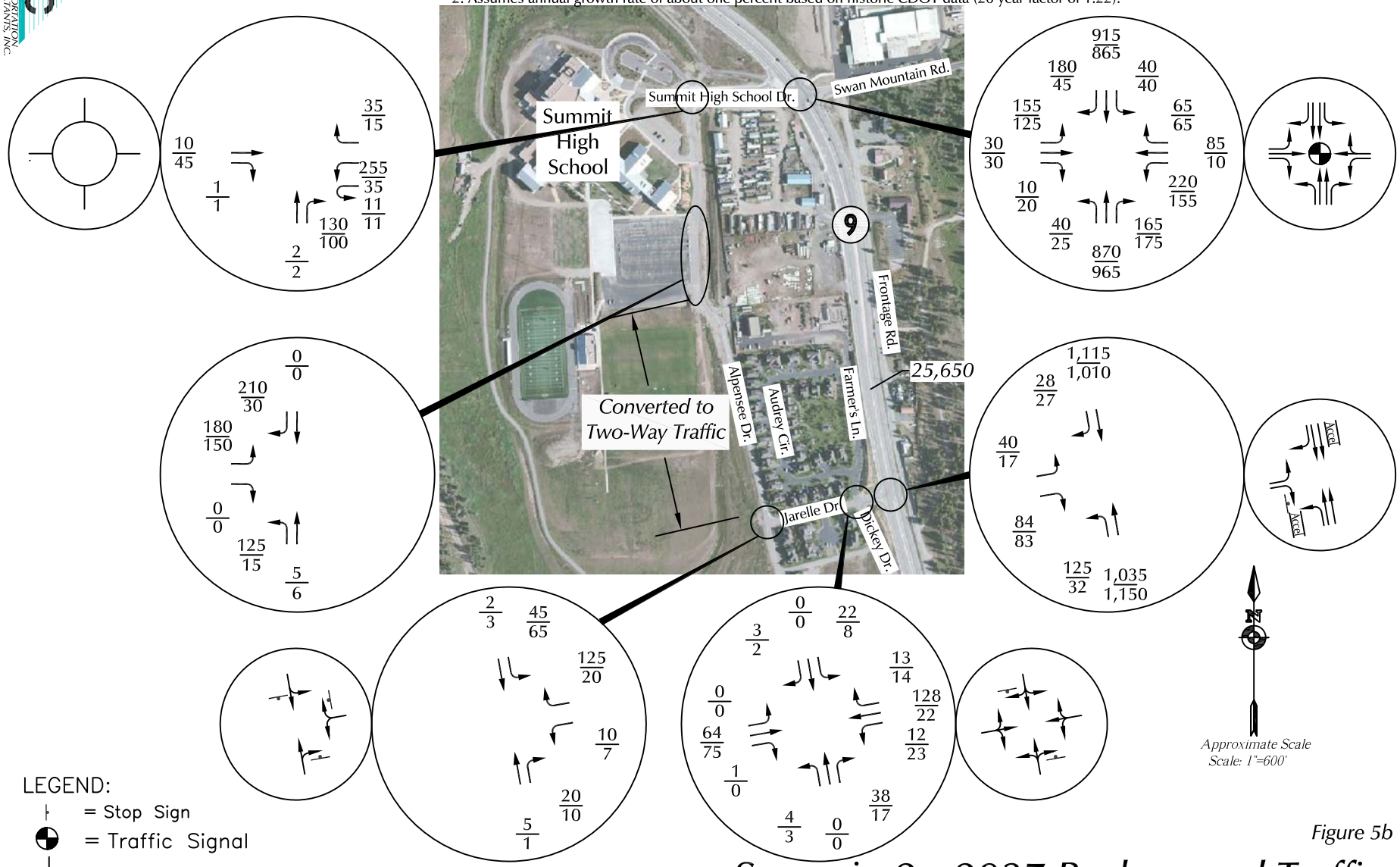
1,000 = Average Daily Traffic

Figure 5a

Scenario 1 - 2037 Background Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)

Notes:
1. Scenario 2 assumes Alpensee Drive is converted to two-way.
2. Assumes annual growth rate of about one percent based on historic CDOT data (20 year factor of 1.22).



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

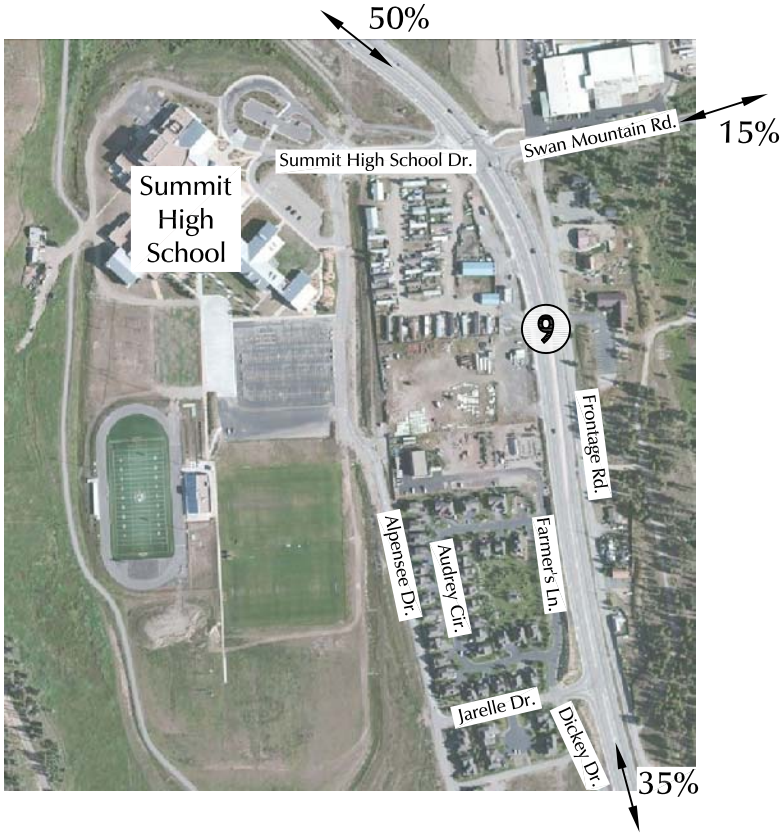
26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 5b

Scenario 2 - 2037 Background Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)



Approximate Scale
Scale: 1"=600'

LEGEND:

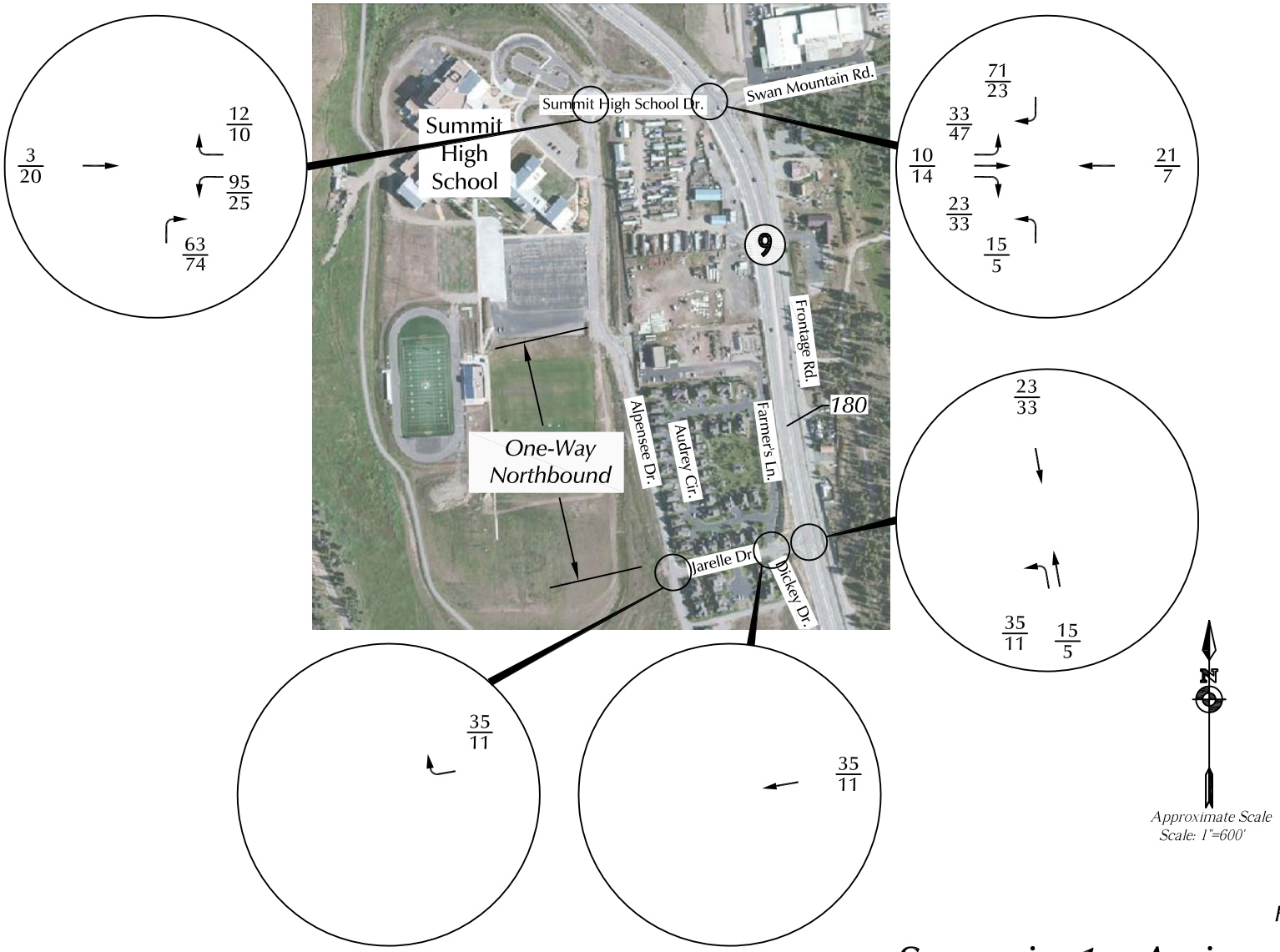
65% = Percent Directional Distribution

Figure 6

Directional Distribution of Site-Generated Traffic

Summit High School (LSC #170160)

Note: Scenario 1 assumes Alpensee Drive remains one-way northbound.



LEGEND:

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic (7:15–8:15am)}}{\text{PM Peak Hour Traffic (2:45–3:45pm)}}$

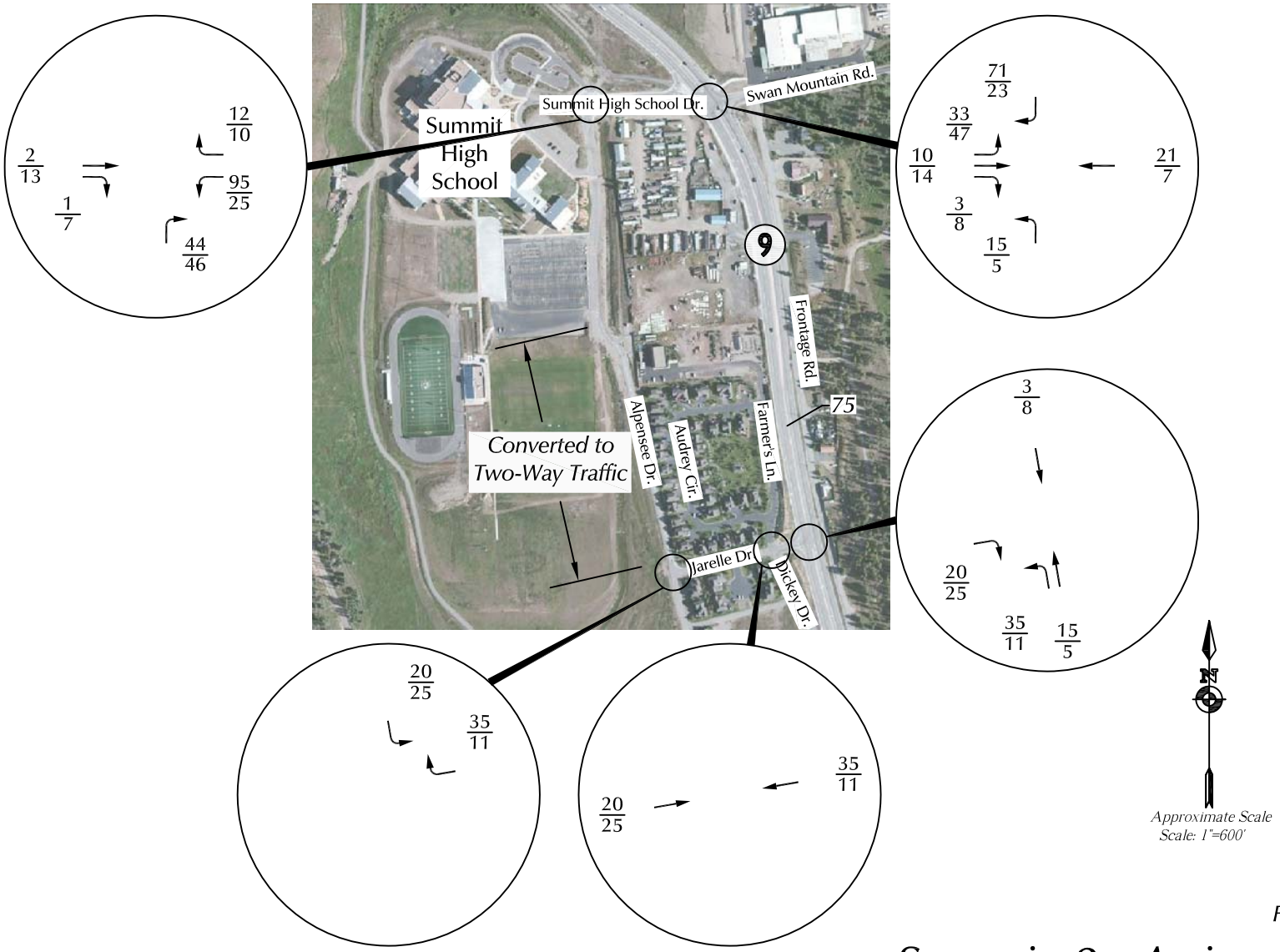
1,000 = Average Daily Traffic

Figure 7a

Scenario 1 - Assignment of Site Generated Traffic

Summit High School (LSC #170160)

Note: Scenario 2 assumes Alpensee Drive is converted to two-way traffic.



LEGEND:

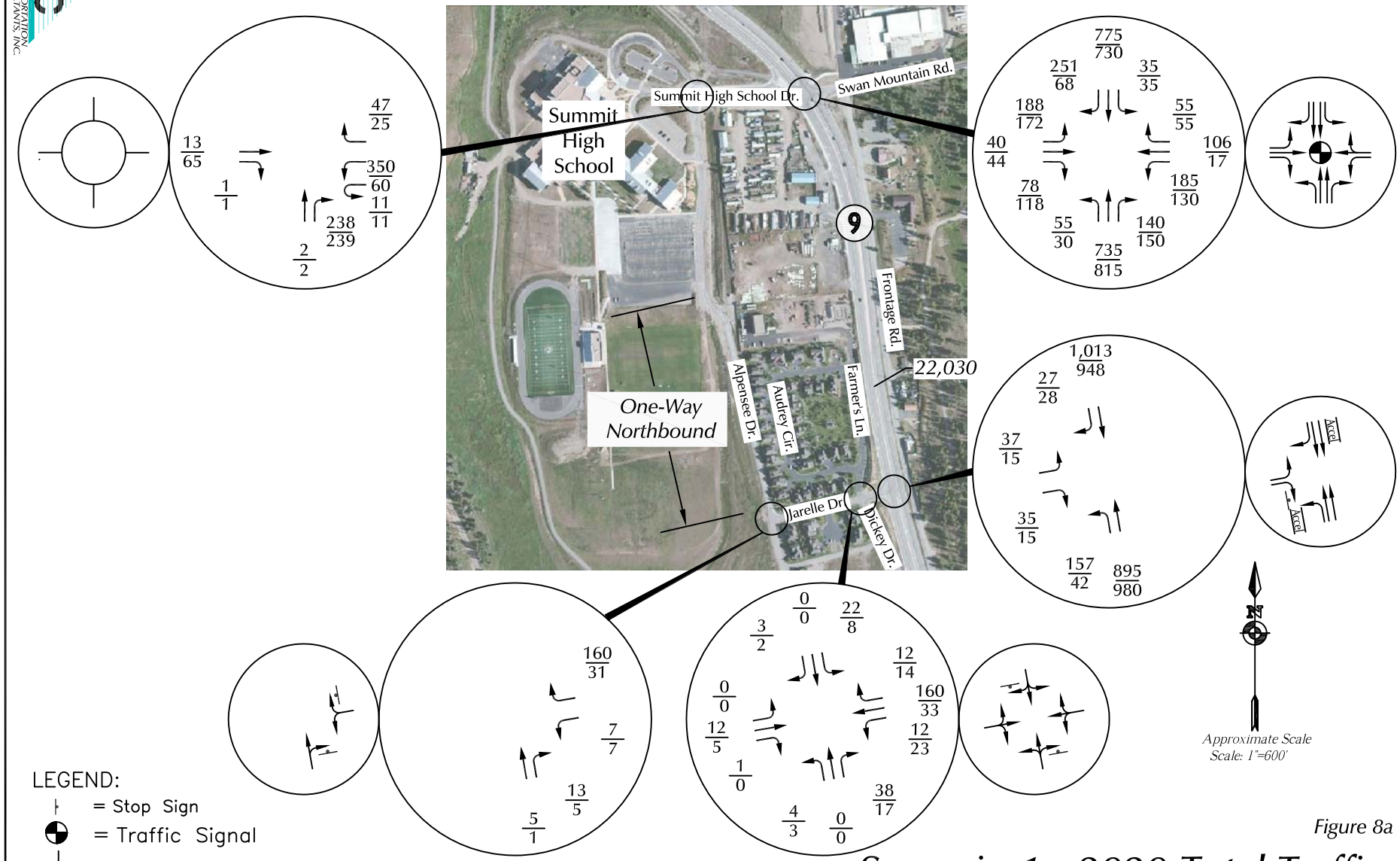
$\frac{26}{35}$ = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 7b

Scenario 2 - Assignment of Site Generated Traffic

Summit High School (LSC #170160)



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

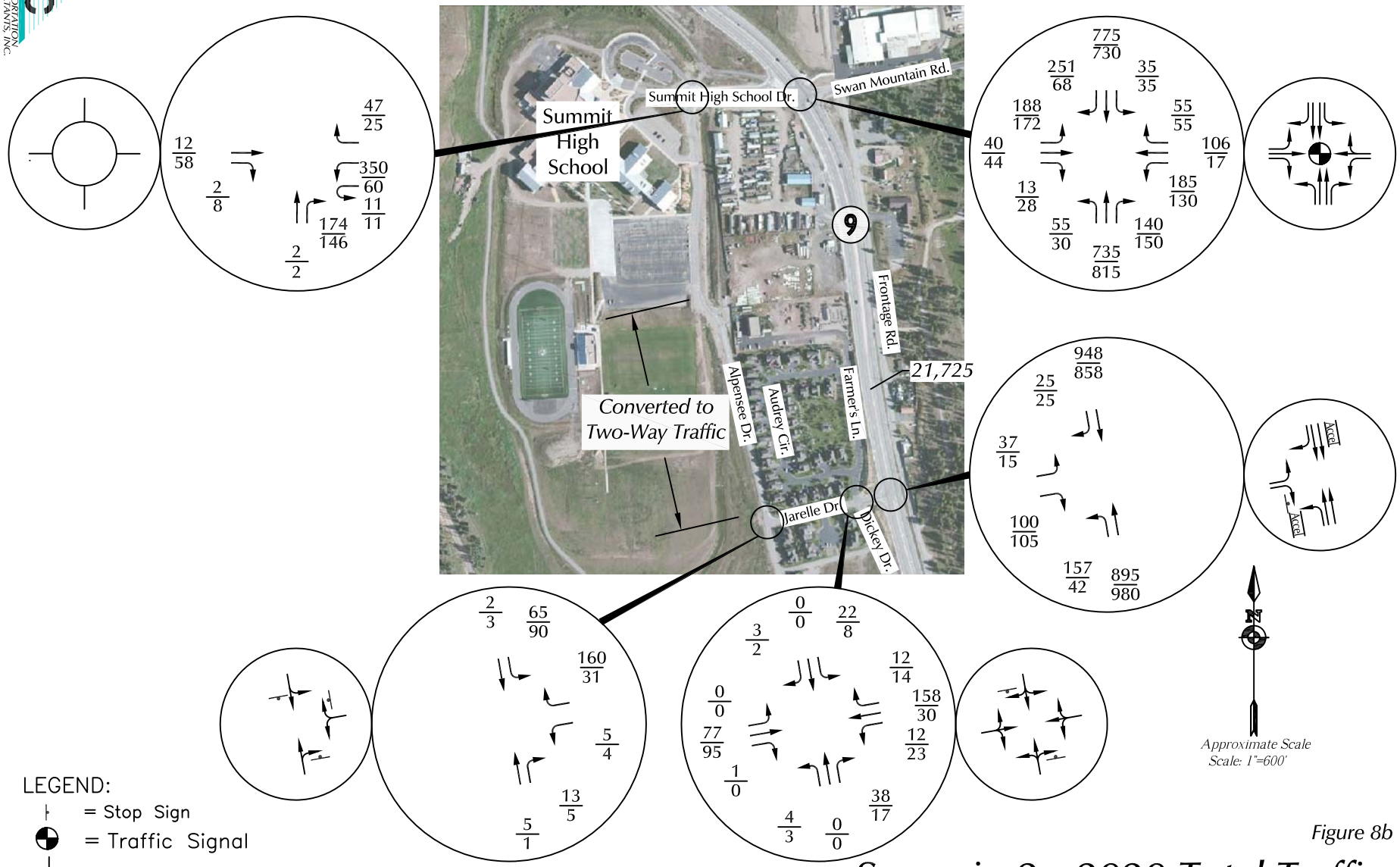
26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 8a

Scenario 1 - 2020 Total Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

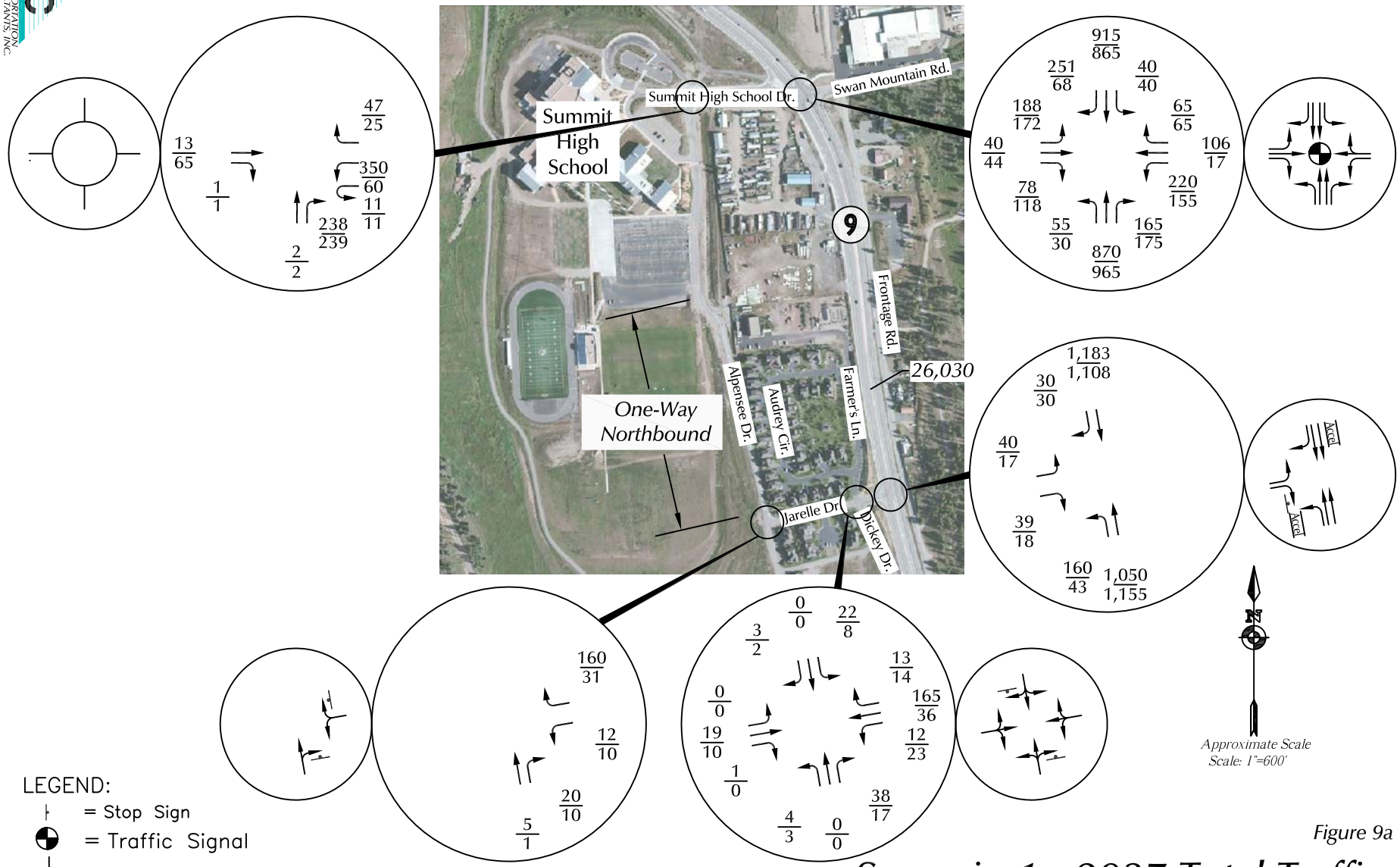
26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 8b

Scenario 2 - 2020 Total Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

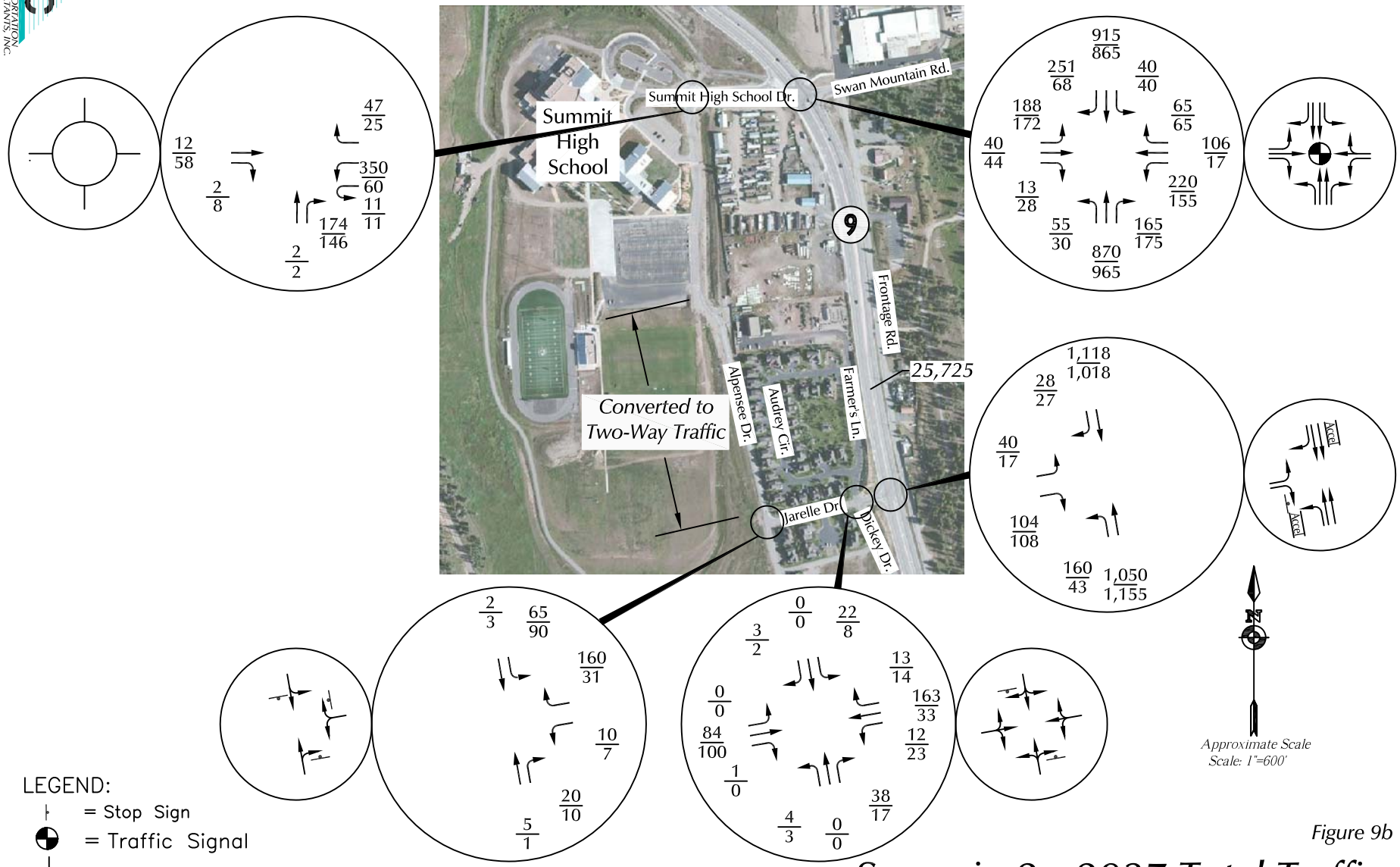
26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 9a

Scenario 1 - 2037 Total Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)



LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

26/35 = AM Peak Hour Traffic (7:15–8:15am) / PM Peak Hour Traffic (2:45–3:45pm)

1,000 = Average Daily Traffic

Figure 9b

Scenario 2 - 2037 Total Traffic, Lane Geometry and Traffic Control

Summit High School (LSC #170160)

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: SCHOOL RD / SWAN MOUNTAIN RD
CITY:
COUNTY: SUMMIT

File Name : HWY9SCHO
Site Code : 00000016
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

	HWY-9 Southbound				SWAN MOUNTAIN RD Westbound				HWY-9 Northbound				SCHOOL RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	4	77	8	1	26	4	10	0	6	95	14	0	8	0	5	0	258
07:15 AM	8	125	84	1	36	36	10	0	17	156	20	0	46	8	10	1	558
07:30 AM	12	190	85	0	45	41	14	0	10	175	32	0	80	13	24	0	721
07:45 AM	6	236	9	0	56	4	14	1	10	202	43	0	19	4	15	0	619
Total	30	628	186	2	163	85	48	1	43	628	109	0	153	25	54	1	2156
08:00 AM	6	199	1	0	43	0	12	0	2	181	41	0	9	2	5	0	501
08:15 AM	7	184	4	0	66	2	10	0	3	221	37	0	3	0	6	0	543
Total	13	383	5	0	109	2	22	0	5	402	78	0	12	2	11	0	1044
02:15 PM	3	141	6	0	40	2	5	0	1	169	43	0	19	7	27	0	463
02:30 PM	7	151	14	0	34	1	11	0	2	205	38	0	5	1	8	0	477
02:45 PM	12	167	20	0	37	6	15	0	8	200	26	0	13	3	11	0	518
Total	22	459	40	0	111	9	31	0	11	574	107	0	37	11	46	0	1458
03:00 PM	10	166	8	0	20	2	8	0	6	200	43	0	78	13	45	0	599
03:15 PM	6	183	5	0	34	0	17	0	2	184	40	3	18	3	14	0	509
03:30 PM	4	193	9	1	37	0	12	0	5	206	39	0	16	7	14	0	543
Grand Total	85	2012	253	3	474	98	138	1	72	2194	416	3	314	61	184	1	6309
Apprch %	3.6	85.5	10.8	0.1	66.7	13.8	19.4	0.1	2.7	81.7	15.5	0.1	56.1	10.9	32.9	0.2	
Total %	1.3	31.9	4.0	0.0	7.5	1.6	2.2	0.0	1.1	34.8	6.6	0.0	5.0	1.0	2.9	0.0	

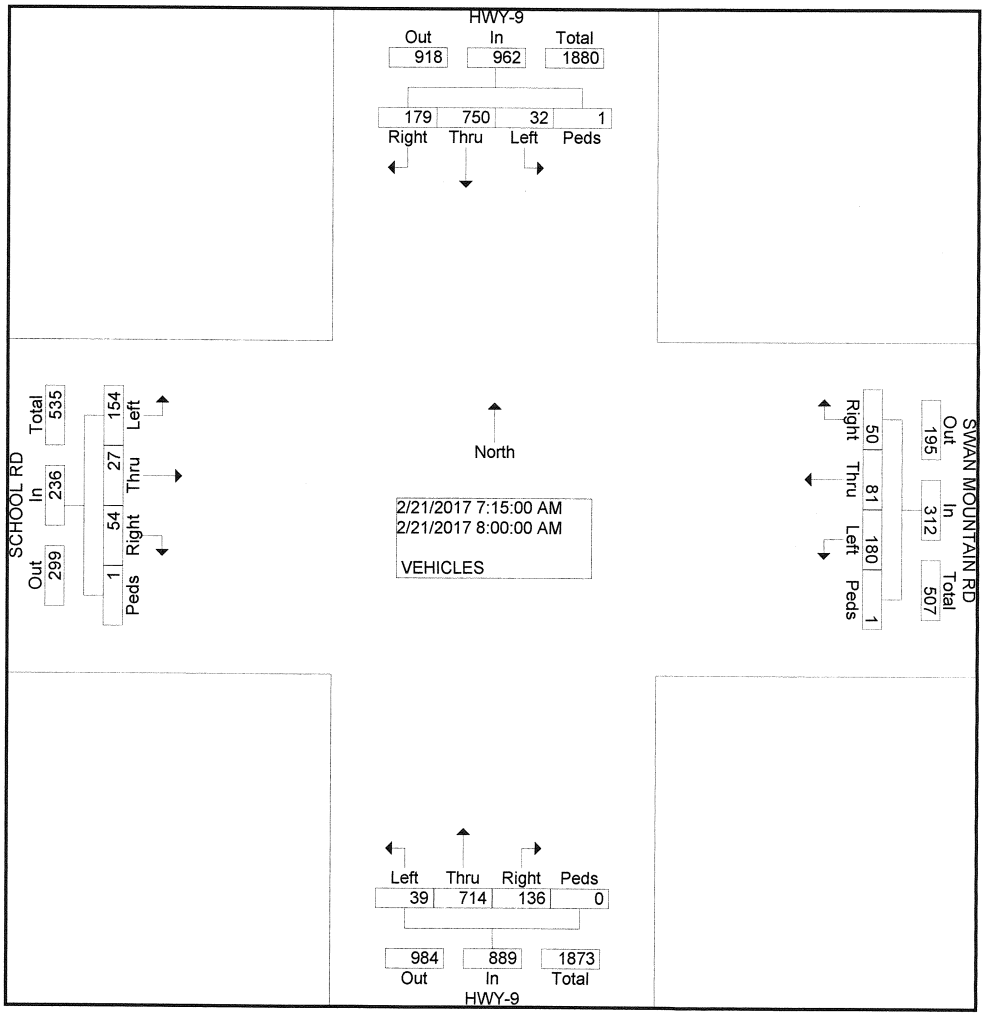
COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: SCHOOL RD / SWAN MOUNTAIN RD
CITY:
COUNTY: SUMMIT

File Name : HWY9SCHO
Site Code : 00000016
Start Date : 2/21/2017
Page No : 2

	HWY-9 Southbound					SWAN MOUNTAIN RD Westbound					HWY-9 Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 09:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	32	750	179	1	962	180	81	50	1	312	39	714	136	0	889	154	27	54	1	236	2399
Percent	3.3	78.0	18.6	0.1		57.7	26.0	16.0	0.3		4.4	80.3	15.3	0.0		65.3	11.4	22.9	0.4		
07:30 Volume	12	190	85	0	287	45	41	14	0	100	10	175	32	0	217	80	13	24	0	117	721
Peak Factor																					0.832
High Int.	07:30 AM					07:30 AM					07:45 AM					07:30 AM					
Volume	12	190	85	0	287	45	41	14	0	100	10	202	43	0	255	80	13	24	0	117	
Peak Factor					0.838					0.780					0.872					0.504	



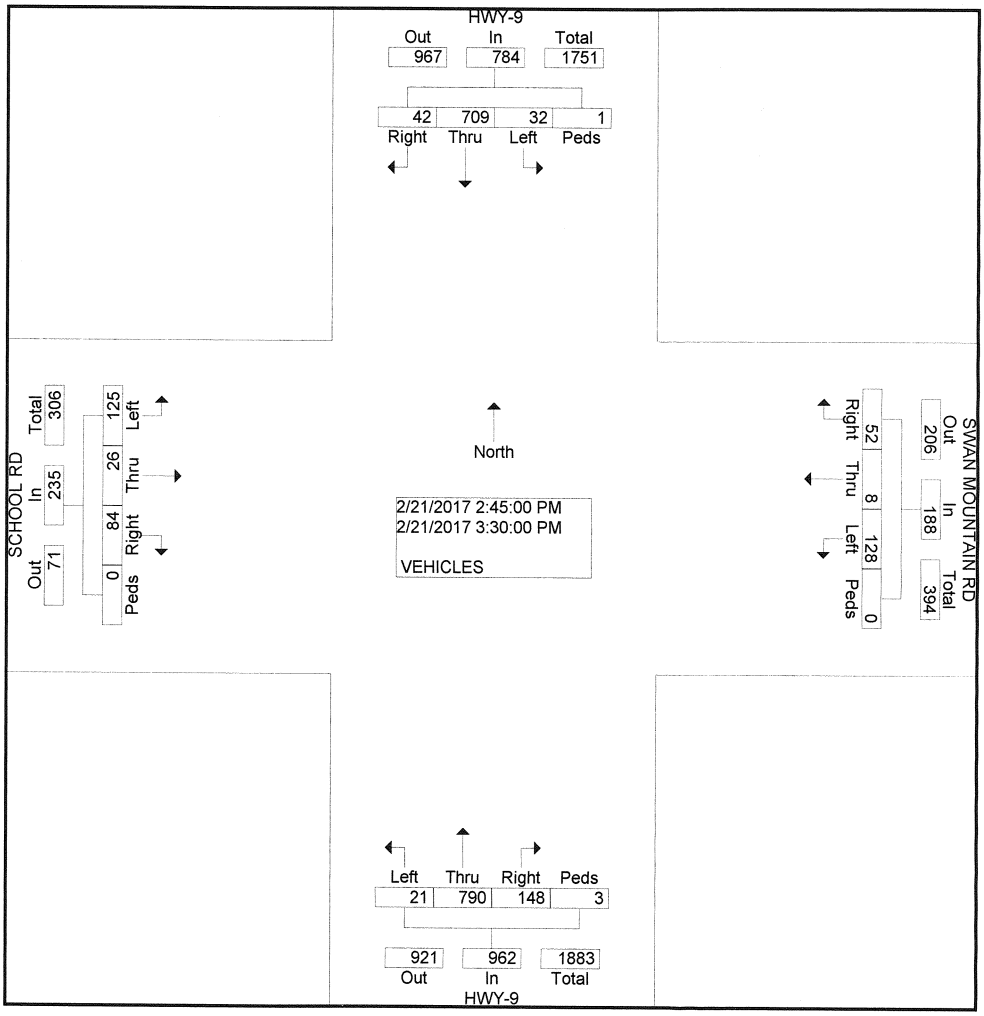
COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: SCHOOL RD / SWAN MOUNTAIN RD
CITY:
COUNTY: SUMMIT

File Name : HWY9SCHO
Site Code : 00000016
Start Date : 2/21/2017
Page No : 2

	HWY-9 Southbound					SWAN MOUNTAIN RD Westbound					HWY-9 Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:15 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	32	709	42	1	784	128	8	52	0	188	21	790	148	3	962	125	26	84	0	235	2169
Percent	4.1	90.4	5.4	0.1		68.1	4.3	27.7	0.0		2.2	82.1	15.4	0.3		53.2	11.1	35.7	0.0		
03:00 Volume	10	166	8	0	184	20	2	8	0	30	6	200	43	0	249	78	13	45	0	136	599
Peak Factor																					0.905
High Int.	03:30 PM					02:45 PM					03:30 PM					03:00 PM					
Volume	4	193	9	1	207	37	6	15	0	58	5	206	39	0	250	78	13	45	0	136	
Peak Factor					0.947					0.810					0.962					0.432	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

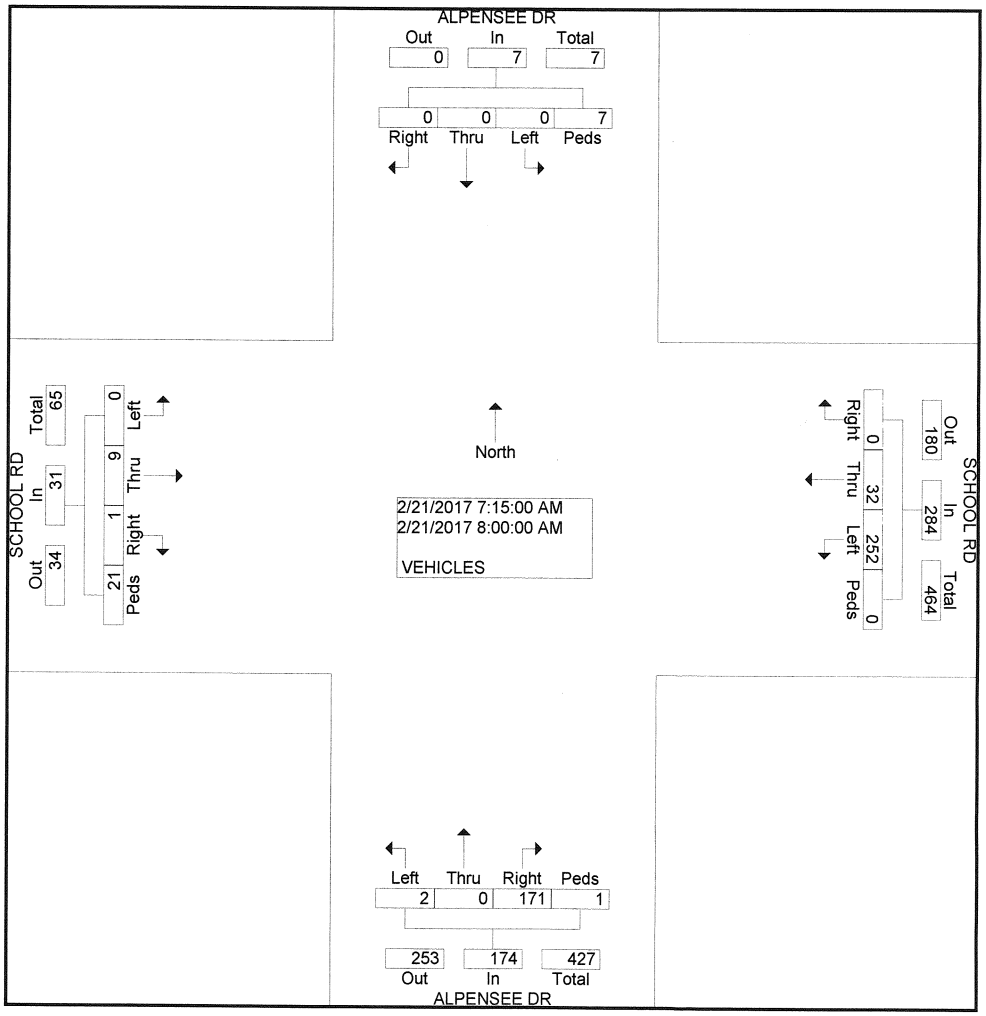
	ALPENSEE DR Southbound				SCHOOL RD Westbound				ALPENSEE DR Northbound				SCHOOL RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	17	2	0	0	0	0	9	0	0	2	0	2	32
07:15 AM	0	0	0	3	119	13	0	0	0	0	58	0	0	1	0	15	209
07:30 AM	0	0	0	4	124	14	0	0	2	0	90	0	0	4	1	3	242
07:45 AM	0	0	0	0	9	4	0	0	0	0	20	1	0	3	0	3	40
Total	0	0	0	7	269	33	0	0	2	0	177	1	0	10	1	23	523
08:00 AM	0	0	0	0	0	1	0	0	0	0	3	0	0	1	0	0	5
08:15 AM	0	0	0	1	4	0	0	0	0	0	4	0	0	1	0	0	10
Total	0	0	0	1	4	1	0	0	0	0	7	0	0	2	0	0	15
02:15 PM	0	0	0	5	5	1	0	0	0	0	41	0	0	3	3	1	59
02:30 PM	0	0	0	1	12	4	0	0	0	0	9	1	0	3	0	2	32
02:45 PM	0	0	0	15	17	8	0	0	0	0	25	5	0	9	0	6	85
Total	0	0	0	21	34	13	0	0	0	0	75	6	0	15	3	9	176
03:00 PM	0	0	0	40	11	1	0	2	0	0	105	5	0	14	0	12	190
03:15 PM	0	0	0	11	1	2	0	0	0	0	15	3	0	11	0	9	52
03:30 PM	0	0	0	0	4	2	0	0	0	0	19	0	0	11	0	1	37
Grand Total	0	0	0	80	323	52	0	2	2	0	398	15	0	63	4	54	993
Apprch %	0.0	0.0	0.0	100.0	85.7	13.8	0.0	0.5	0.5	0.0	95.9	3.6	0.0	52.1	3.3	44.6	
Total %	0.0	0.0	0.0	8.1	32.5	5.2	0.0	0.2	0.2	0.0	40.1	1.5	0.0	6.3	0.4	5.4	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					SCHOOL RD Westbound					ALPENSEE DR Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	0	7	7	252	32	0	0	284	2	0	171	1	174	0	9	1	21	31	496
Percent	0.0	0.0	0.0	100.0		88.7	11.3	0.0	0.0		1.1	0.0	98.3	0.6		0.0	29.0	3.2	67.7		
07:30 Volume	0	0	0	4	4	124	14	0	0	138	2	0	90	0	92	0	4	1	3	8	242
Peak Factor																					0.512
High Int.	07:30 AM					07:30 AM					07:30 AM					07:15 AM					
Volume	0	0	0	4	4	124	14	0	0	138	2	0	90	0	92	0	1	0	15	16	
Peak Factor					0.438					0.514					0.473					0.484	

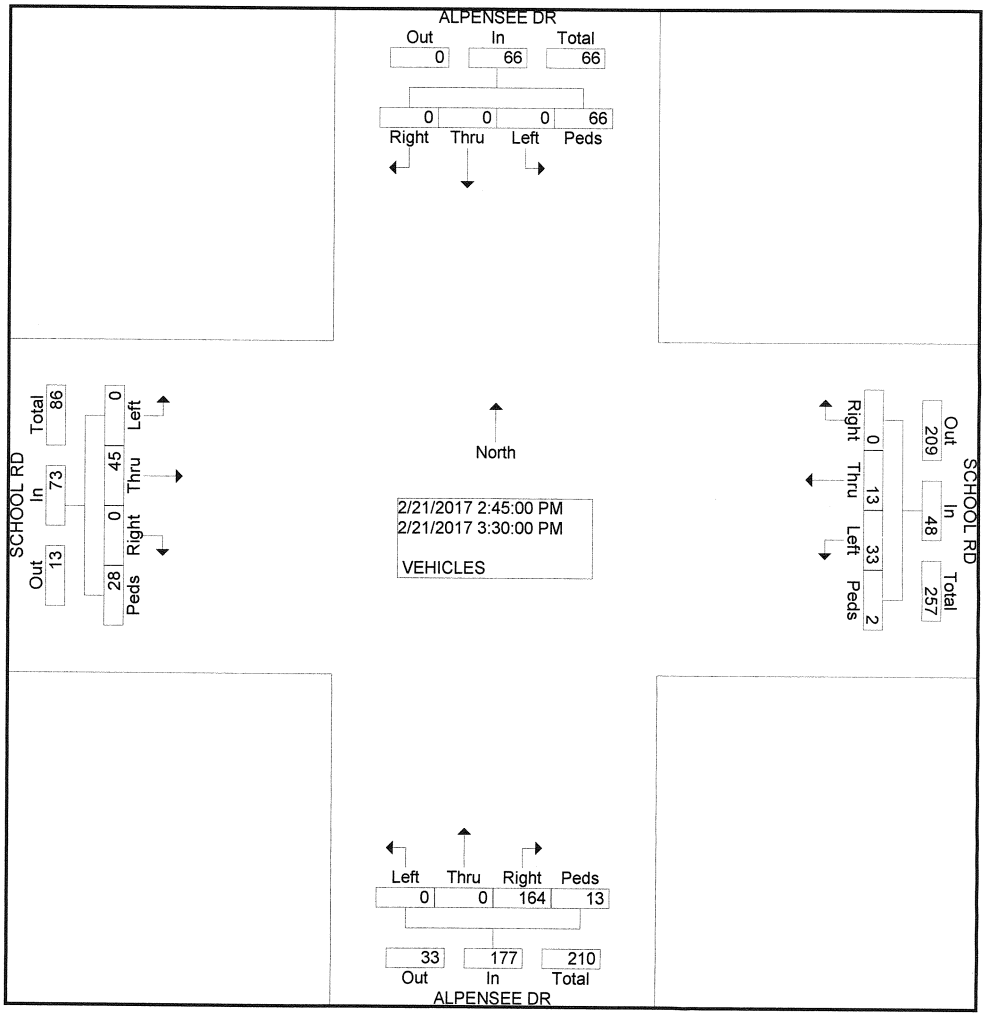


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					SCHOOL RD Westbound					ALPENSEE DR Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	0	0	0	66	66	33	13	0	2	48	0	0	164	13	177	0	45	0	28	73	364
Percent	0.0	0.0	0.0	100.0		68.8	27.1	0.0	4.2		0.0	0.0	92.7	7.3		0.0	61.6	0.0	38.4		
03:00 Volume	0	0	0	40	40	11	1	0	2	14	0	0	105	5	110	0	14	0	12	26	190
Peak Factor																					0.479
High Int.	03:00 PM					02:45 PM					03:00 PM					03:00 PM					
Volume	0	0	0	40	40	17	8	0	0	25	0	0	105	5	110	0	14	0	12	26	
Peak Factor					0.413					0.480					0.402					0.702	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 1

Groups Printed- BUS U-TURNS

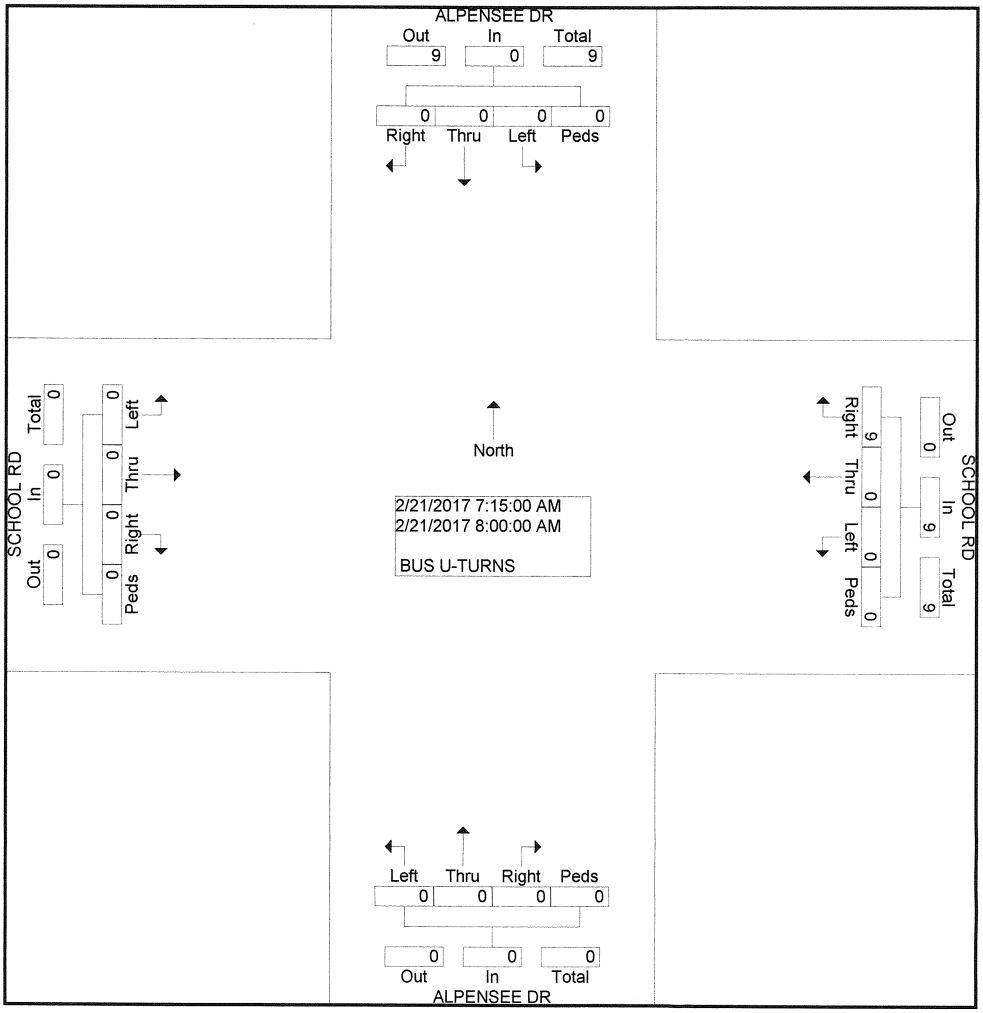
	ALPENSEE DR Southbound				SCHOOL RD Westbound				ALPENSEE DR Northbound				SCHOOL RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:15 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
08:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
02:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	8
03:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
03:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
03:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	27
Apprch %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					SCHOOL RD Westbound					ALPENSEE DR Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	0	0	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	9
Percent	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
07:45 Volume	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	4
Peak Factor																					0.563
High Int.						07:45 AM															
Volume	0	0	0	0	0	0	0	4	0	4											
Peak Factor										0.563											

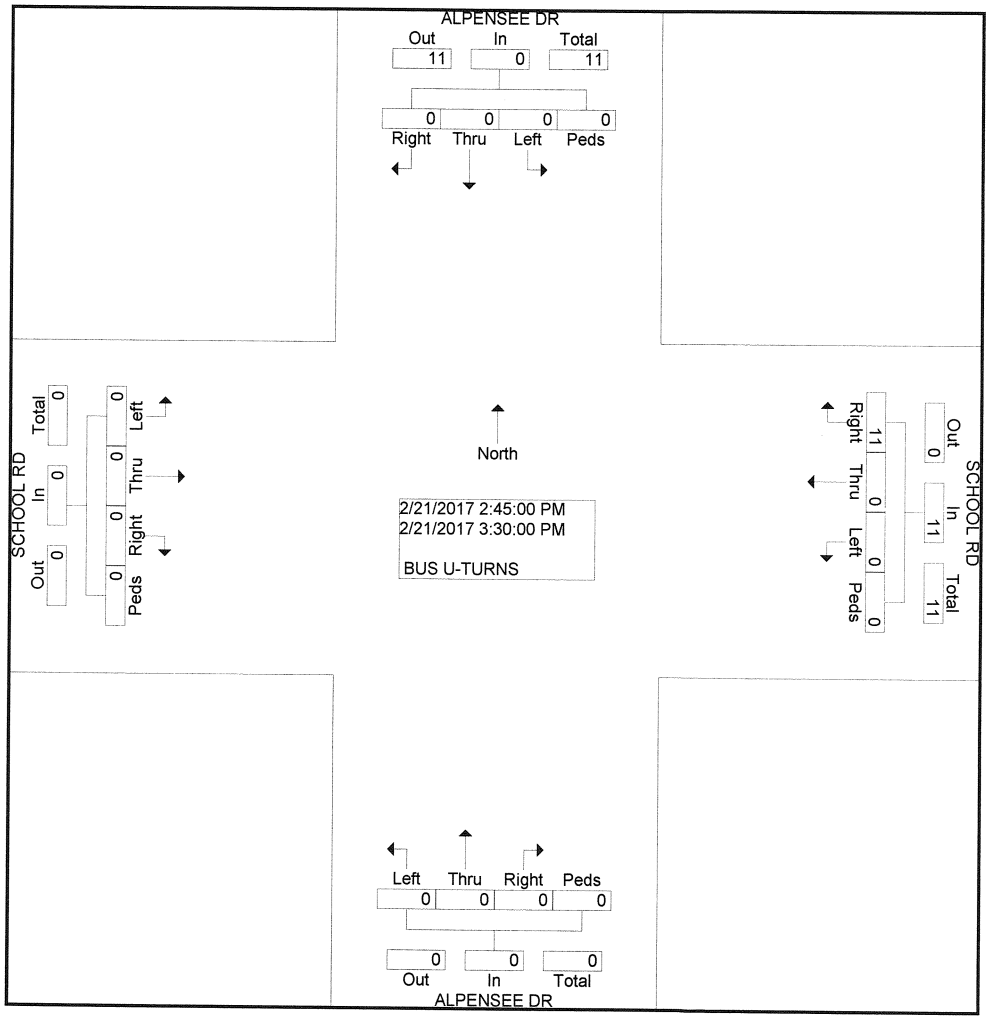


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SCHOOL RD
CITY:
COUNTY: SUMMIT

File Name : ALPESCHO
Site Code : 00000008
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					SCHOOL RD Westbound					ALPENSEE DR Northbound					SCHOOL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	0	0	0	0	0	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	11
Percent	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
03:15 Volume	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	3
Peak Factor																					0.917
High Int.						02:45 PM															
Volume	0	0	0	0	0	0	0	3	0	3											
Peak Factor										0.917											



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : ALPEJARE
Site Code : 00000013
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

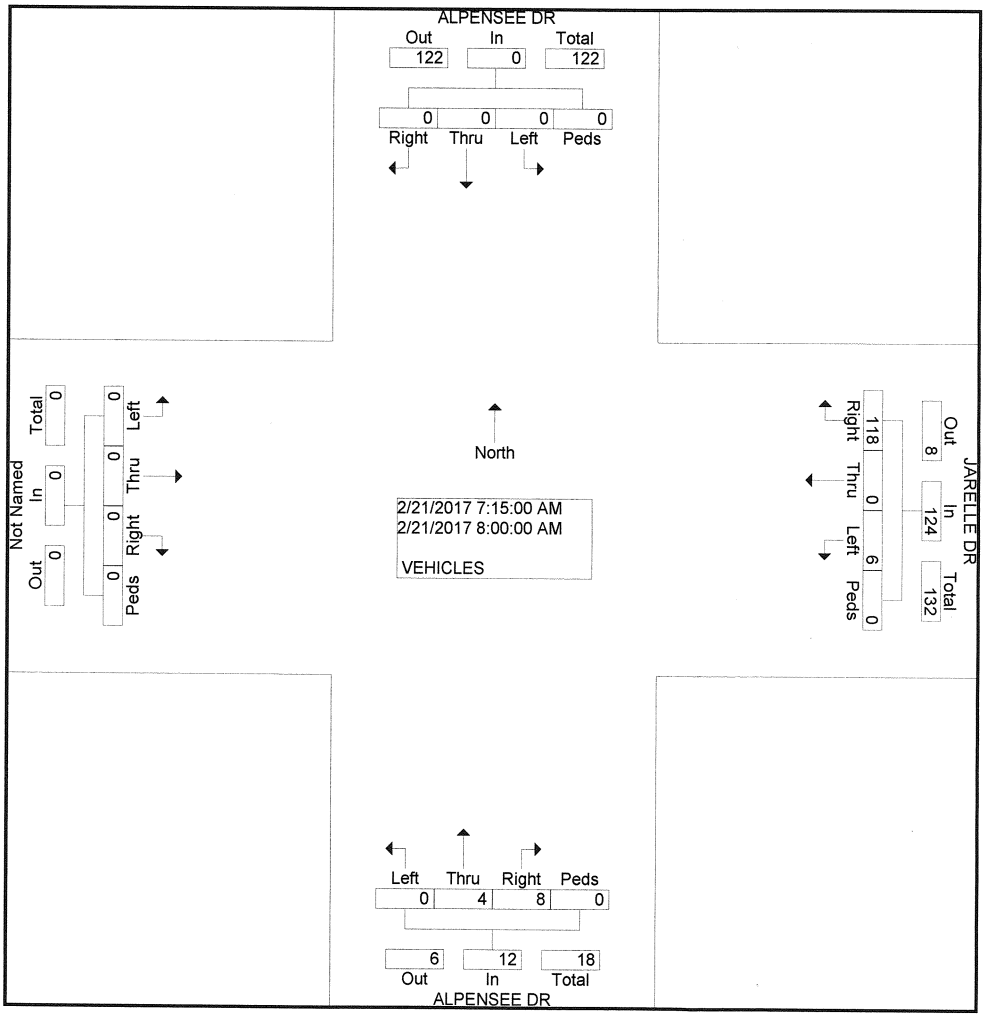
	ALPENSEE DR Southbound				JARELLE DR Westbound				ALPENSEE DR Northbound				Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	0	0	0	0	8	0	0	1	1	0	0	0	0	0	10
07:15 AM	0	0	0	0	0	0	35	0	0	2	0	0	0	0	0	0	37
07:30 AM	0	0	0	0	2	0	74	0	0	1	3	0	0	0	0	0	80
07:45 AM	0	0	0	0	2	0	7	0	0	1	1	0	0	0	0	0	11
Total	0	0	0	0	4	0	124	0	0	5	5	0	0	0	0	0	138
08:00 AM	0	0	0	0	2	0	2	0	0	0	4	0	0	0	0	0	8
08:15 AM	0	0	0	0	1	0	2	0	0	1	2	0	0	0	0	0	6
Total	0	0	0	0	3	0	4	0	0	1	6	0	0	0	0	0	14
02:15 PM	0	0	0	0	1	0	5	0	0	0	2	0	0	0	0	0	8
02:30 PM	0	0	0	0	0	0	3	0	0	0	6	0	0	0	0	0	9
02:45 PM	0	0	0	0	1	0	11	0	0	0	0	1	0	0	0	0	13
Total	0	0	0	0	2	0	19	0	0	0	8	1	0	0	0	0	30
03:00 PM	0	0	0	0	2	0	5	0	0	0	2	0	0	0	0	0	9
03:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
03:30 PM	0	0	0	0	2	0	2	0	0	0	2	0	0	0	0	0	6
Grand Total	0	0	0	0	14	0	154	0	0	7	23	1	0	0	0	0	199
Apprch %	0.0	0.0	0.0	0.0	8.3	0.0	91.7	0.0	0.0	22.6	74.2	3.2	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	7.0	0.0	77.4	0.0	0.0	3.5	11.6	0.5	0.0	0.0	0.0	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : ALPEJARE
Site Code : 00000013
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					JARELLE DR Westbound					ALPENSEE DR Northbound					Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	0	0	0	6	0	118	0	124	0	4	8	0	12	0	0	0	0	0	136
Percent	0.0	0.0	0.0	0.0		4.8	0.0	95.2	0.0		0.0	33.3	66.7	0.0		0.0	0.0	0.0	0.0		
07:30 Volume	0	0	0	0	0	2	0	74	0	76	0	1	3	0	4	0	0	0	0	0	80
Peak Factor																					0.425
High Int.						07:30 AM					07:30 AM										
Volume	0	0	0	0	0	2	0	74	0	76	0	1	3	0	4						
Peak Factor										0.408					0.750						

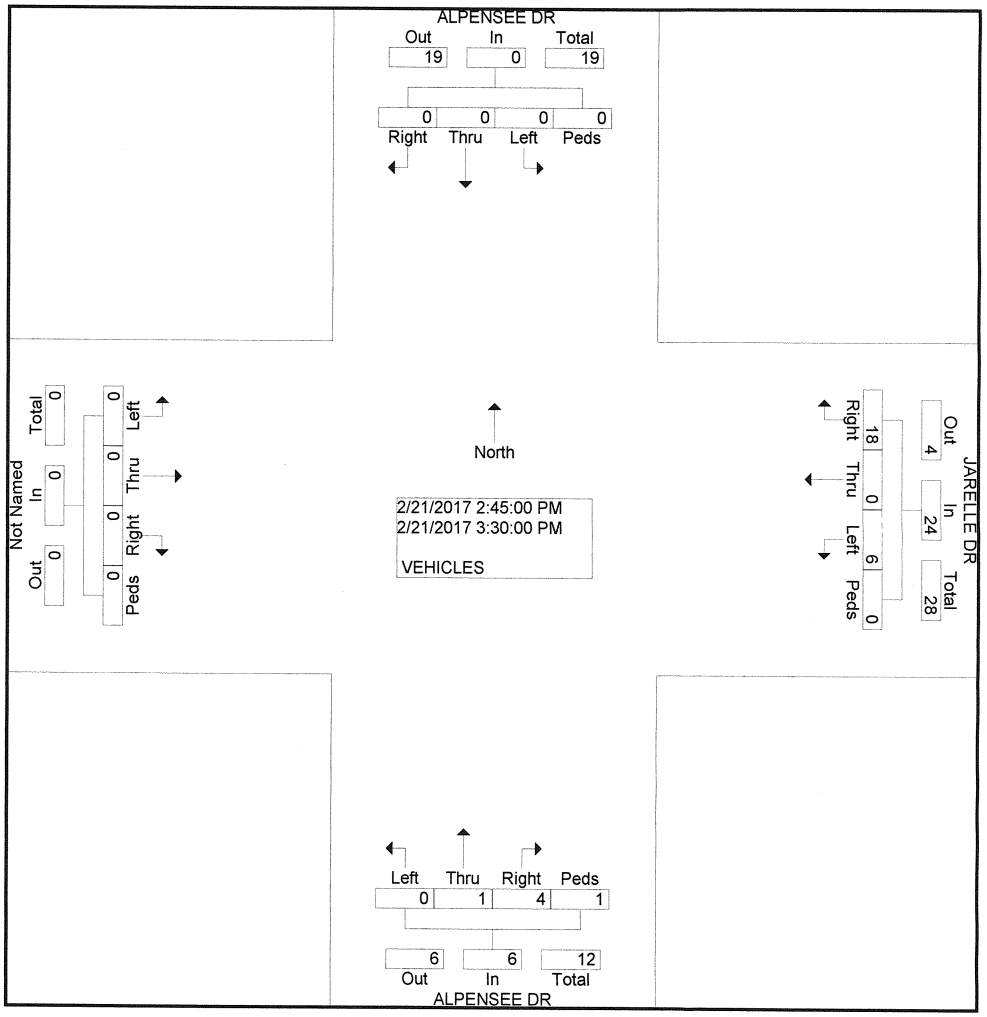


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : ALPEJARE
Site Code : 00000013
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					JARELLE DR Westbound					ALPENSEE DR Northbound					Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	0	0	0	0	0	6	0	18	0	24	0	1	4	1	6	0	0	0	0	0	30
Percent	0.0	0.0	0.0	0.0		25.0	0.0	75.0	0.0		0.0	16.7	66.7	16.7		0.0	0.0	0.0	0.0		
02:45 Volume	0	0	0	0	0	1	0	11	0	12	0	0	0	1	1	0	0	0	0	0	13
Peak Factor																					0.577
High Int.						02:45 PM					03:00 PM										
Volume	0	0	0	0	0	1	0	11	0	12	0	0	2	0	2						
Peak Factor										0.500					0.750						



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: FARNERS LN
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : FARMJARE
Site Code : 00000020
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

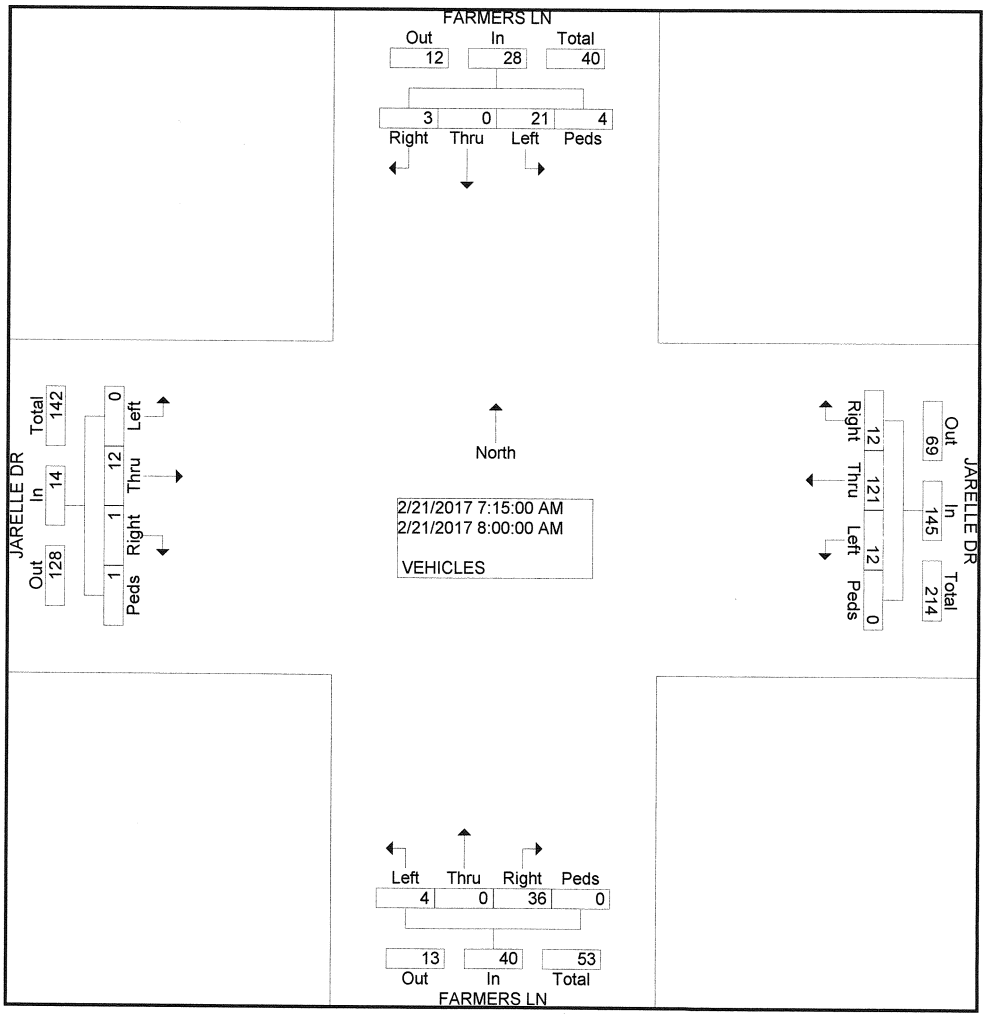
	FARMERS LN Southbound				JARELLE DR Westbound				FARMERS LN Northbound				JARELLE DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	2	0	0	0	0	7	3	0	1	0	1	0	0	1	0	0	15
07:15 AM	2	0	0	0	4	36	2	0	2	0	11	0	0	1	1	0	59
07:30 AM	4	0	1	0	3	74	3	0	0	0	10	0	0	1	0	0	96
07:45 AM	6	0	1	4	5	7	6	0	2	0	8	0	0	4	0	1	44
Total	14	0	2	4	12	124	14	0	5	0	30	0	0	7	1	1	214
08:00 AM	9	0	1	0	0	4	1	0	0	0	7	0	0	6	0	0	28
08:15 AM	7	0	0	0	3	4	0	0	0	0	8	1	0	3	0	0	26
Total	16	0	1	0	3	8	1	0	0	0	15	1	0	9	0	0	54
02:15 PM	3	0	0	0	1	6	2	0	0	0	0	1	0	2	0	0	15
02:30 PM	4	0	0	0	7	8	5	0	0	0	0	1	0	0	0	0	25
02:45 PM	4	0	2	0	7	9	2	0	1	0	5	0	0	0	0	0	30
Total	11	0	2	0	15	23	9	0	1	0	5	2	0	2	0	0	70
03:00 PM	0	0	0	0	6	7	6	0	1	0	3	1	0	1	0	0	25
03:15 PM	3	0	0	0	7	2	3	0	0	0	3	2	0	0	0	1	21
03:30 PM	0	0	0	2	3	4	3	0	1	0	5	0	0	4	0	4	26
Grand Total	44	0	5	6	46	168	36	0	8	0	61	6	0	23	1	6	410
Apprch %	80.0	0.0	9.1	10.9	18.4	67.2	14.4	0.0	10.7	0.0	81.3	8.0	0.0	76.7	3.3	20.0	
Total %	10.7	0.0	1.2	1.5	11.2	41.0	8.8	0.0	2.0	0.0	14.9	1.5	0.0	5.6	0.2	1.5	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: FARNERS LN
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : FARMJARE
Site Code : 00000020
Start Date : 2/21/2017
Page No : 2

	FARMERS LN Southbound					JARELLE DR Westbound					FARMERS LN Northbound					JARELLE DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	21	0	3	4	28	12	121	12	0	145	4	0	36	0	40	0	12	1	1	14	227
Percent	75.0	0.0	10.7	14.3		8.3	83.4	8.3	0.0		10.0	0.0	90.0	0.0		0.0	85.7	7.1	7.1		
07:30 Volume	4	0	1	0	5	3	74	3	0	80	0	0	10	0	10	0	1	0	0	1	96
Peak Factor																					0.591
High Int.	07:45 AM					07:30 AM					07:15 AM					08:00 AM					
Volume	6	0	1	4	11	3	74	3	0	80	2	0	11	0	13	0	6	0	0	6	
Peak Factor					0.636					0.453					0.769					0.583	

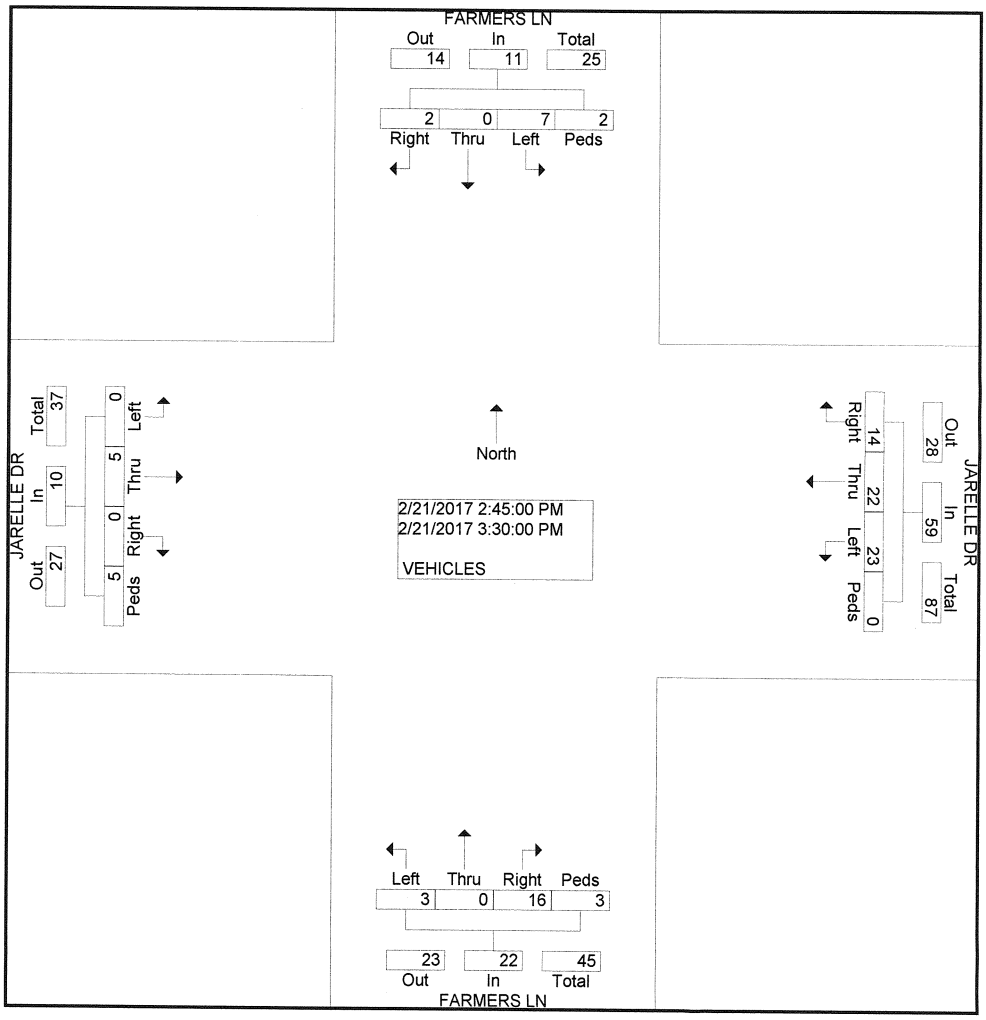


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: FARNERS LN
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : FARMJARE
Site Code : 00000020
Start Date : 2/21/2017
Page No : 2

	FARMERS LN Southbound					JARELLE DR Westbound					FARMERS LN Northbound					JARELLE DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	7	0	2	2	11	23	22	14	0	59	3	0	16	3	22	0	5	0	5	10	102
Percent	63.6	0.0	18.2	18.2		39.0	37.3	23.7	0.0		13.6	0.0	72.7	13.6		0.0	50.0	0.0	50.0		
02:45 Volume	4	0	2	0	6	7	9	2	0	18	1	0	5	0	6	0	0	0	0	0	30
Peak Factor																					0.850
High Int.	02:45 PM					03:00 PM					02:45 PM					03:30 PM					
Volume	4	0	2	0	6	6	7	6	0	19	1	0	5	0	6	0	4	0	4	8	
Peak Factor					0.458					0.776					0.917					0.313	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : HWY9JARE
Site Code : 00000014
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

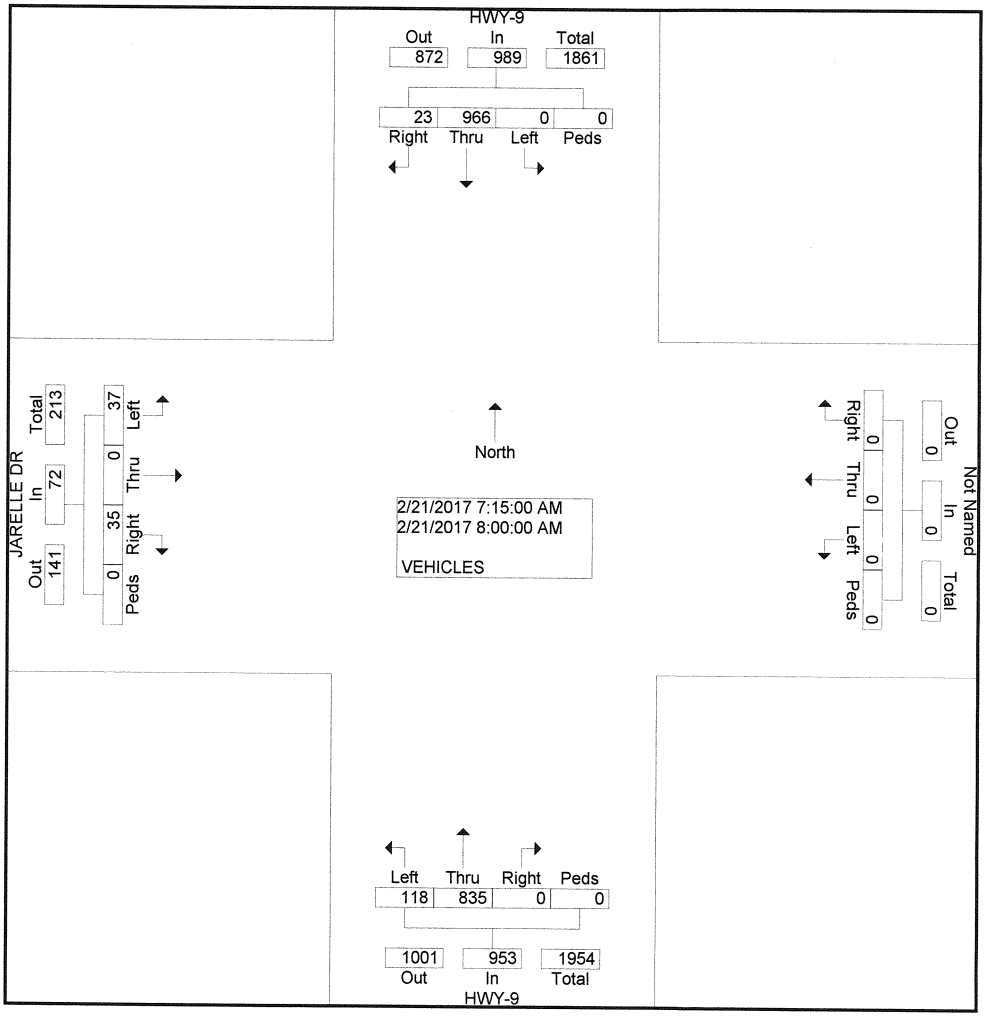
	HWY-9 Southbound				Westbound				HWY-9 Northbound				JARELLE DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	109	3	0	0	0	0	0	8	114	0	0	4	0	0	0	238
07:15 AM	0	167	3	0	0	0	0	0	36	178	0	0	7	0	6	0	397
07:30 AM	0	257	6	0	0	0	0	0	72	212	0	0	8	0	10	0	565
07:45 AM	0	301	12	0	0	0	0	0	7	241	0	0	9	0	9	0	579
Total	0	834	24	0	0	0	0	0	123	745	0	0	28	0	25	0	1779
08:00 AM	0	241	2	0	0	0	0	0	3	204	0	0	13	0	10	0	473
08:15 AM	0	255	3	0	0	0	0	0	4	244	0	0	8	0	9	0	523
Total	0	496	5	0	0	0	0	0	7	448	0	0	21	0	19	0	996
02:15 PM	0	206	2	0	0	0	0	0	7	202	0	0	4	0	1	0	422
02:30 PM	0	188	16	0	0	0	0	0	4	232	0	0	4	0	0	0	444
02:45 PM	0	204	3	0	0	0	0	0	14	223	0	0	5	0	4	0	453
Total	0	598	21	0	0	0	0	0	25	657	0	0	13	0	5	0	1319
03:00 PM	0	218	12	0	0	0	0	0	8	234	0	0	2	0	2	0	476
03:15 PM	0	226	7	0	0	0	0	0	5	227	0	0	3	0	3	0	471
03:30 PM	0	244	6	0	0	0	0	0	4	239	0	0	5	0	5	0	503
Grand Total	0	2616	75	0	0	0	0	0	172	2550	0	0	72	0	59	0	5544
Apprch %	0.0	97.2	2.8	0.0	0.0	0.0	0.0	0.0	6.3	93.7	0.0	0.0	55.0	0.0	45.0	0.0	
Total %	0.0	47.2	1.4	0.0	0.0	0.0	0.0	0.0	3.1	46.0	0.0	0.0	1.3	0.0	1.1	0.0	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : HWY9JARE
Site Code : 00000014
Start Date : 2/21/2017
Page No : 2

	HWY-9 Southbound					Westbound					HWY-9 Northbound					JARELLE DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	966	23	0	989	0	0	0	0	0	118	835	0	0	953	37	0	35	0	72	2014
Percent	0.0	97.7	2.3	0.0		0.0	0.0	0.0	0.0		12.4	87.6	0.0	0.0		51.4	0.0	48.6	0.0		
07:45 Volume	0	301	12	0	313	0	0	0	0	0	7	241	0	0	248	9	0	9	0	18	579
Peak Factor																					0.870
High Int.	07:45 AM										07:30 AM					08:00 AM					
Volume	0	301	12	0	313	0	0	0	0	0	72	212	0	0	284	13	0	10	0	23	
Peak Factor					0.790										0.839					0.783	

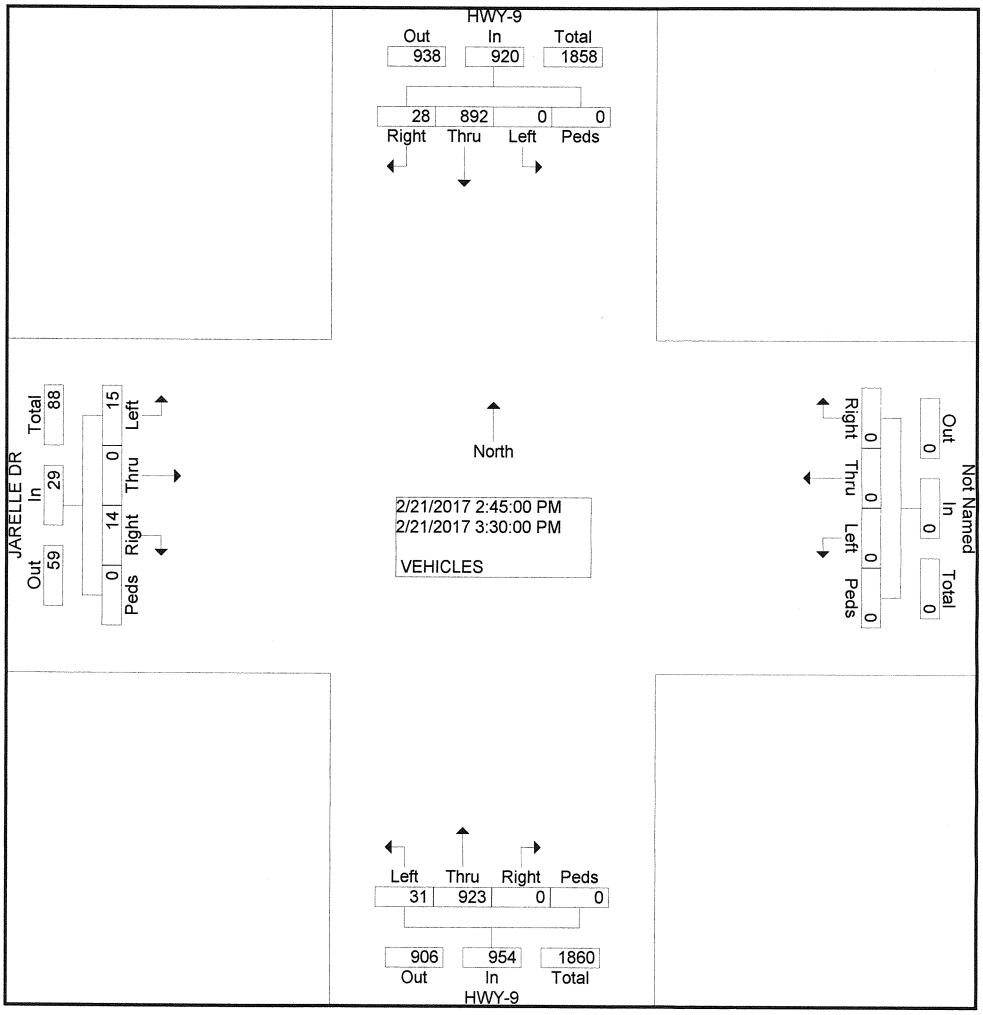


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: HWY-9
E/W STREET: JARELLE DR
CITY:
COUNTY: SUMMIT

File Name : HWY9JARE
Site Code : 00000014
Start Date : 2/21/2017
Page No : 2

	HWY-9 Southbound					Westbound					HWY-9 Northbound					JARELLE DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	0	892	28	0	920	0	0	0	0	0	31	923	0	0	954	15	0	14	0	29	1903
Percent	0.0	97.0	3.0	0.0		0.0	0.0	0.0	0.0		3.2	96.8	0.0	0.0		51.7	0.0	48.3	0.0		
03:30 Volume	0	244	6	0	250	0	0	0	0	0	4	239	0	0	243	5	0	5	0	10	503
Peak Factor																					0.946
High Int.	03:30 PM										03:30 PM					03:30 PM					
Volume	0	244	6	0	250	0	0	0	0	0	4	239	0	0	243	5	0	5	0	10	
Peak Factor					0.920										0.981					0.725	



COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SUMMIT HIGH SCHOOL PARKING
CITY:
COUNTY: SUMMIT

File Name : ALPESUMM
Site Code : 00000015
Start Date : 2/21/2017
Page No : 1

Groups Printed- VEHICLES

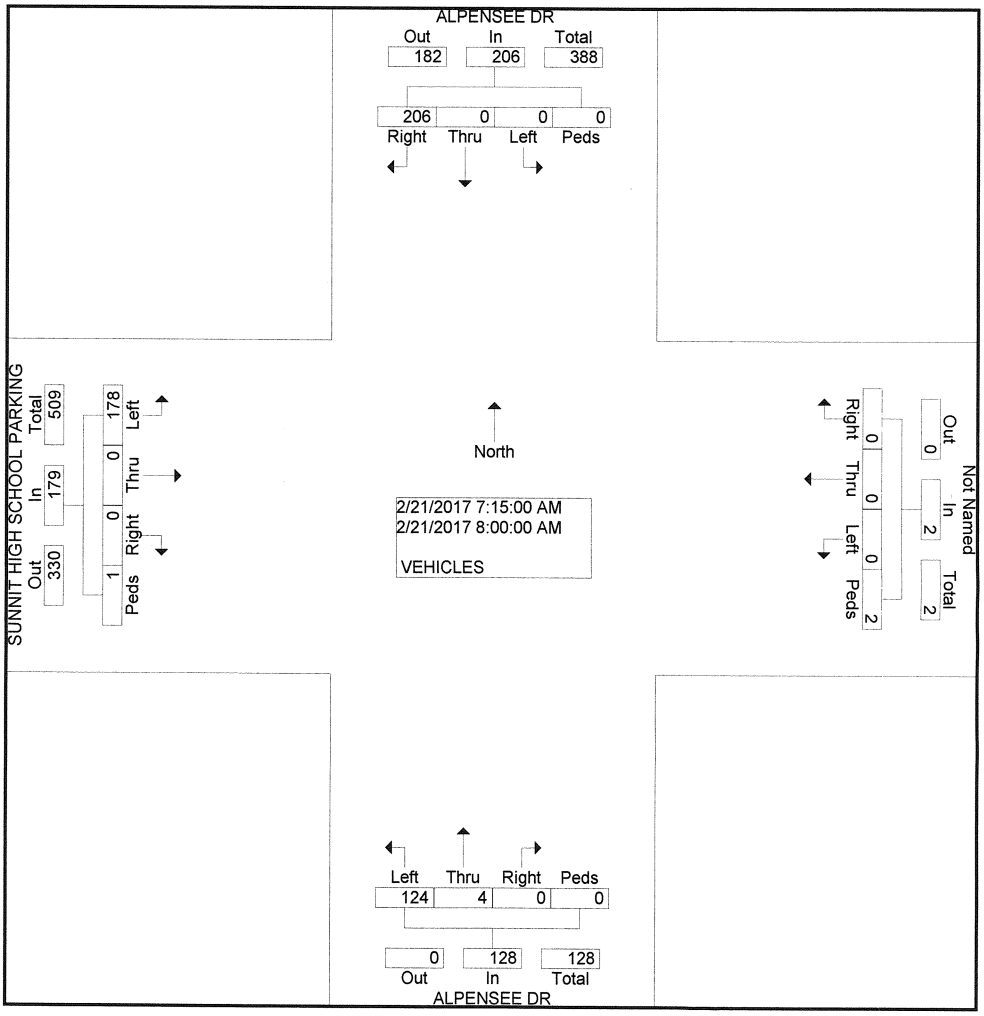
	ALPENSEE DR Southbound				Westbound				ALPENSEE DR Northbound				SUNNIT HIGH SCHOOL PARKING Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	8	0	0	0	0	0	5	2	0	0	9	0	0	0	24
07:15 AM	0	0	92	0	0	0	0	2	33	1	0	0	64	0	0	0	192
07:30 AM	0	0	107	0	0	0	0	0	83	1	0	0	94	0	0	1	286
07:45 AM	0	0	7	0	0	0	0	0	7	1	0	0	18	0	0	0	33
Total	0	0	214	0	0	0	0	2	128	5	0	0	185	0	0	1	535
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	4
08:15 AM	0	0	2	0	0	0	0	0	1	2	0	0	2	0	0	0	7
Total	0	0	2	0	0	0	0	0	2	3	0	0	4	0	0	0	11
02:15 PM	0	0	4	0	0	0	0	0	5	0	0	0	44	0	0	1	54
02:30 PM	0	0	13	0	0	0	0	1	5	3	0	0	5	0	0	0	27
02:45 PM	0	0	16	0	0	0	0	1	8	1	0	0	37	0	0	4	67
Total	0	0	33	0	0	0	0	2	18	4	0	0	86	0	0	5	148
03:00 PM	0	0	12	0	0	0	0	1	7	0	0	0	89	0	0	2	111
03:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	10	0	0	0	12
03:30 PM	0	0	1	0	0	0	0	0	0	2	0	0	12	0	0	4	19
Grand Total	0	0	263	0	0	0	0	5	155	15	0	0	386	0	0	12	836
Apprch %	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	91.2	8.8	0.0	0.0	97.0	0.0	0.0	3.0	
Total %	0.0	0.0	31.5	0.0	0.0	0.0	0.0	0.6	18.5	1.8	0.0	0.0	46.2	0.0	0.0	1.4	

COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SUMMIT HIGH SCHOOL PARKING
CITY:
COUNTY: SUMMIT

File Name : ALPESUMM
Site Code : 00000015
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					Westbound					ALPENSEE DR Northbound					SUNNIT HIGH SCHOOL PARKING Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	206	0	206	0	0	0	2	2	124	4	0	0	128	178	0	0	1	179	515
Percent	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		96.9	3.1	0.0	0.0		99.4	0.0	0.0	0.6		
07:30 Volume	0	0	107	0	107	0	0	0	0	0	83	1	0	0	84	94	0	0	1	95	286
Peak Factor																					0.450
High Int.	07:30 AM					07:15 AM					07:30 AM					07:30 AM					
Volume	0	0	107	0	107	0	0	0	2	2	83	1	0	0	84	94	0	0	1	95	
Peak Factor					0.481					0.250					0.381					0.471	

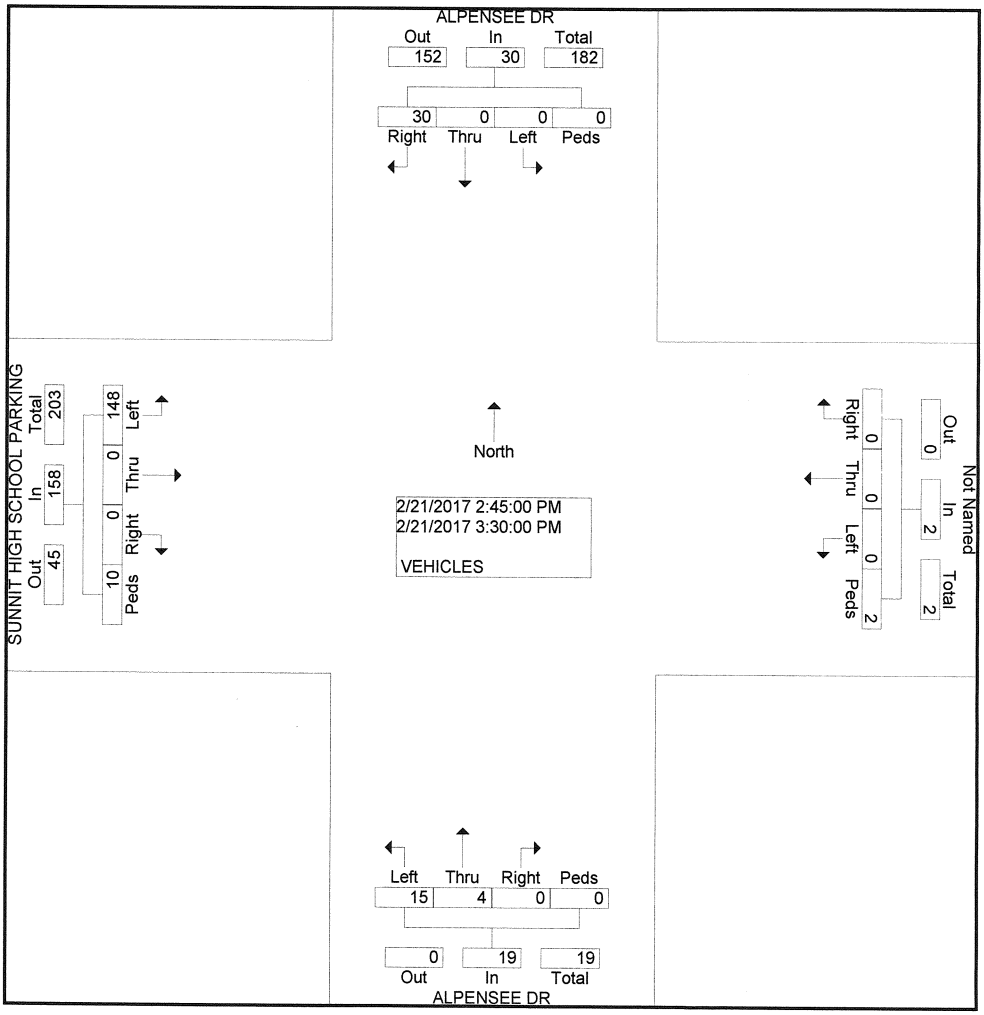


COUNTER MEASURES INC.
1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: ALPENSEE DR
E/W STREET: SUMMIT HIGH SCHOOL PARKING
CITY:
COUNTY: SUMMIT

File Name : ALPESUMM
Site Code : 00000015
Start Date : 2/21/2017
Page No : 2

	ALPENSEE DR Southbound					Westbound					ALPENSEE DR Northbound					SUNNIT HIGH SCHOOL PARKING Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 02:45 PM to 03:30 PM - Peak 1 of 1																					
Intersection	02:45 PM																				
Volume	0	0	30	0	30	0	0	0	2	2	15	4	0	0	19	148	0	0	10	158	209
Percent	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		78.9	21.1	0.0	0.0		93.7	0.0	0.0	6.3		
03:00 Volume	0	0	12	0	12	0	0	0	1	1	7	0	0	0	7	89	0	0	2	91	111
Peak Factor																					0.471
High Int.	02:45 PM					02:45 PM					02:45 PM					03:00 PM					
Volume	0	0	16	0	16	0	0	0	1	1	8	1	0	0	9	89	0	0	2	91	
Peak Factor					0.469					0.500					0.528					0.434	



LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2010

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	Average Vehicle Delay sec/vehicle	Operational Characteristics
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2010

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.
D	25 to 35 seconds	This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	27	54	180	81	50	39	714	136	32	750	179
Future Volume (veh/h)	154	27	54	180	81	50	39	714	136	32	750	179
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	308	54	108	231	104	64	45	821	156	39	904	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	290	247	463	138	85	326	1730	774	322	1721	770
Arrive On Green	0.16	0.16	0.16	0.13	0.13	0.13	0.04	0.49	0.49	0.03	0.49	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1080	665	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	308	54	108	231	0	168	45	821	156	39	904	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1745	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.8	2.5	6.2	11.1	0.0	9.3	1.2	15.4	5.6	1.1	17.6	0.0
Cycle Q Clear(g_c), s	14.8	2.5	6.2	11.1	0.0	9.3	1.2	15.4	5.6	1.1	17.6	0.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	290	247	463	0	224	326	1730	774	322	1721	770
V/C Ratio(X)	0.77	0.19	0.44	0.50	0.00	0.75	0.14	0.47	0.20	0.12	0.53	0.00
Avail Cap(c_a), veh/h	399	559	475	512	0	524	582	1730	774	583	1721	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.7	36.7	38.2	31.4	0.0	42.1	13.4	17.0	14.5	13.1	17.7	0.0
Incr Delay (d2), s/veh	9.1	0.3	1.2	0.8	0.0	5.0	0.2	0.9	0.6	0.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	1.3	2.8	5.5	0.0	4.8	0.6	7.8	2.6	0.5	8.8	0.0
LnGrp Delay(d),s/veh	39.8	37.0	39.5	32.3	0.0	47.1	13.6	17.9	15.1	13.2	18.9	0.0
LnGrp LOS	D	D	D	C		D	B	B	B	B	B	
Approach Vol, veh/h		470			399			1022			943	
Approach Delay, s/veh		39.4			38.5			17.3			18.6	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	55.9	17.2	19.6	7.6	55.6	20.0	16.8
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.1	17.4	13.1	8.2	3.2	19.6	16.8	11.3
Green Ext Time (p_c), s	0.0	0.0	0.2	1.6	0.1	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	35	118	835	966	23
Future Vol, veh/h	37	35	118	835	966	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	40	136	960	1110	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1861	555	1110	0	-	0
Stage 1	1110	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	65	475	625	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	51	475	625	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	334	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.6	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	625	-	161	475	-	-
HCM Lane V/C Ratio	0.217	-	0.264	0.085	-	-
HCM Control Delay (s)	12.3	-	35.2	13.3	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.8	-	1	0.3	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	12	121	12	4	0	36	21	0	3
Future Vol, veh/h	0	12	1	12	121	12	4	0	36	21	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	2	20	205	20	7	0	61	36	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	225	0	0	22	0	0	279	287	21	308	278	215
Stage 1	-	-	-	-	-	-	21	21	-	256	256	-
Stage 2	-	-	-	-	-	-	258	266	-	52	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1344	-	-	1593	-	-	673	623	1056	644	630	825
Stage 1	-	-	-	-	-	-	998	878	-	749	696	-
Stage 2	-	-	-	-	-	-	747	689	-	961	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1344	-	-	1593	-	-	662	614	1056	600	621	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	662	614	-	600	621	-
Stage 1	-	-	-	-	-	-	998	878	-	749	686	-
Stage 2	-	-	-	-	-	-	732	679	-	905	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	8.9	11.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	997	1344	-	-	1593	-	-	621
HCM Lane V/C Ratio	0.068	-	-	-	0.013	-	-	0.066
HCM Control Delay (s)	8.9	0	-	-	7.3	0	-	11.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	6	118	0	4	8	0	0	0
Future Vol, veh/h	0	6	118	0	4	8	0	0	0
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	274	0	9	19	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	7.7	7.2
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	5%
Vol Thru, %	33%	0%
Vol Right, %	67%	95%
Sign Control	Stop	Stop
Traffic Vol by Lane	12	124
LT Vol	0	6
Through Vol	4	0
RT Vol	8	118
Lane Flow Rate	28	288
Geometry Grp	1	1
Degree of Util (X)	0.031	0.274
Departure Headway (Hd)	4.036	3.422
Convergence, Y/N	Yes	Yes
Cap	885	1053
Service Time	2.071	1.433
HCM Lane V/C Ratio	0.032	0.274
HCM Control Delay	7.2	7.7
HCM Lane LOS	A	A
HCM 95th-tile Q	0.1	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	26	84	128	8	52	21	790	148	32	709	42
Future Volume (veh/h)	125	26	84	128	8	52	21	790	148	32	709	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	60	195	158	10	64	22	823	154	34	754	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	419	283	240	351	20	128	402	1868	836	347	1896	848
Arrive On Green	0.16	0.15	0.15	0.10	0.09	0.09	0.02	0.53	0.53	0.03	0.54	0.00
Sat Flow, veh/h	1774	1863	1583	1774	218	1398	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	291	60	195	158	0	74	22	823	154	34	754	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1616	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.3	2.8	11.9	7.9	0.0	4.4	0.6	14.3	5.1	0.9	12.6	0.0
Cycle Q Clear(g_c), s	14.3	2.8	11.9	7.9	0.0	4.4	0.6	14.3	5.1	0.9	12.6	0.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	419	283	240	351	0	148	402	1868	836	347	1896	848
V/C Ratio(X)	0.69	0.21	0.81	0.45	0.00	0.50	0.05	0.44	0.18	0.10	0.40	0.00
Avail Cap(c_a), veh/h	419	559	475	458	0	485	681	1868	836	612	1896	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	37.2	41.0	35.9	0.0	43.2	10.9	14.5	12.3	11.0	13.7	0.0
Incr Delay (d2), s/veh	4.9	0.4	6.5	0.9	0.0	2.6	0.1	0.8	0.5	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	1.5	5.6	3.9	0.0	2.1	0.3	7.2	2.3	0.4	6.2	0.0
LnGrp Delay(d),s/veh	36.9	37.5	47.5	36.8	0.0	45.9	11.0	15.3	12.8	11.1	14.3	0.0
LnGrp LOS	D	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		546			232			999			788	
Approach Delay, s/veh		40.8			39.7			14.8			14.2	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	59.8	14.0	19.2	6.3	60.6	20.0	13.2
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	2.9	16.3	9.9	13.9	2.6	14.6	16.3	6.4
Green Ext Time (p_c), s	0.0	0.6	0.2	1.3	0.0	1.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	14	31	923	892	28
Future Vol, veh/h	15	14	31	923	892	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	15	33	972	939	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1490	469	939	0	-	0
Stage 1	939	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	115	541	726	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	110	541	726	-	-	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	516	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.8	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	726	-	235	541	-	-
HCM Lane V/C Ratio	0.045	-	0.067	0.027	-	-
HCM Control Delay (s)	10.2	-	21.4	11.8	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	0	23	22	14	3	0	16	7	0	2
Future Vol, veh/h	0	5	0	23	22	14	3	0	16	7	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	0	27	26	16	4	0	19	8	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	42	0	0	6	0	0	95	102	6	103	94	34
Stage 1	-	-	-	-	-	-	6	6	-	88	88	-
Stage 2	-	-	-	-	-	-	89	96	-	15	6	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1567	-	-	1615	-	-	888	788	1077	877	796	1039
Stage 1	-	-	-	-	-	-	1016	891	-	920	822	-
Stage 2	-	-	-	-	-	-	918	815	-	1005	891	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1615	-	-	874	775	1077	850	782	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	775	-	850	782	-
Stage 1	-	-	-	-	-	-	1016	891	-	920	808	-
Stage 2	-	-	-	-	-	-	900	801	-	987	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.8	8.5	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1039	1567	-	-	1615	-	-	886
HCM Lane V/C Ratio	0.022	-	-	-	0.017	-	-	0.012
HCM Control Delay (s)	8.5	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	6	18	0	1	4	0	0	0
Future Vol, veh/h	0	6	18	0	1	4	0	0	0
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	31	0	2	7	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.7	6.6
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	25%
Vol Thru, %	20%	0%
Vol Right, %	80%	75%
Sign Control	Stop	Stop
Traffic Vol by Lane	5	24
LT Vol	0	6
Through Vol	1	0
RT Vol	4	18
Lane Flow Rate	9	41
Geometry Grp	1	1
Degree of Util (X)	0.008	0.041
Departure Headway (Hd)	3.526	3.55
Convergence, Y/N	Yes	Yes
Cap	1019	1015
Service Time	1.534	1.55
HCM Lane V/C Ratio	0.009	0.04
HCM Control Delay	6.6	6.7
HCM Lane LOS	A	A
HCM 95th-tile Q	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	30	55	185	85	55	40	735	140	35	775	180
Future Volume (veh/h)	155	30	55	185	85	55	40	735	140	35	775	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	310	60	110	237	109	71	46	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	301	256	472	143	93	310	1698	760	310	1692	757
Arrive On Green	0.16	0.16	0.16	0.13	0.14	0.14	0.04	0.48	0.48	0.03	0.48	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1055	687	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	310	60	110	237	0	180	46	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1742	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.8	2.8	6.3	11.3	0.0	10.0	1.3	16.3	5.9	1.2	18.7	0.0
Cycle Q Clear(g_c), s	14.8	2.8	6.3	11.3	0.0	10.0	1.3	16.3	5.9	1.2	18.7	0.0
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	301	256	472	0	237	310	1698	760	310	1692	757
V/C Ratio(X)	0.78	0.20	0.43	0.50	0.00	0.76	0.15	0.50	0.21	0.14	0.55	0.00
Avail Cap(c_a), veh/h	399	559	475	518	0	522	565	1698	760	568	1692	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	36.3	37.8	30.7	0.0	41.6	14.0	17.8	15.1	13.6	18.5	0.0
Incr Delay (d2), s/veh	9.3	0.3	1.1	0.8	0.0	5.0	0.2	1.0	0.6	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	1.5	2.8	5.6	0.0	5.1	0.6	8.2	2.7	0.6	9.4	0.0
LnGrp Delay(d),s/veh	39.6	36.6	38.9	31.6	0.0	46.6	14.2	18.8	15.7	13.8	19.8	0.0
LnGrp LOS	D	D	D	C		D	B	B	B	B	B	
Approach Vol, veh/h		480			417			1052			976	
Approach Delay, s/veh		39.1			38.1			18.1			19.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	55.0	17.4	20.2	7.6	54.8	20.0	17.6
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.2	18.3	13.3	8.3	3.3	20.7	16.8	12.0
Green Ext Time (p_c), s	0.0	0.0	0.2	1.7	0.1	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	35	122	880	990	27
Future Vol, veh/h	37	35	122	880	990	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	40	140	1011	1138	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1924	569	1138	0	-	0
Stage 1	1138	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	59	465	610	-	-	-
Stage 1	268	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	45	465	610	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	268	-	-	-	-	-
Stage 2	316	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.7	1.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	610	-	153	465	-	-
HCM Lane V/C Ratio	0.23	-	0.278	0.087	-	-
HCM Control Delay (s)	12.7	-	37.3	13.5	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.9	-	1.1	0.3	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	12	125	12	4	0	38	22	0	3
Future Vol, veh/h	0	12	1	12	125	12	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	2	20	212	20	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	22	0	0	286	294	21	316	285	222
Stage 1	-	-	-	-	-	-	21	21	-	263	263	-
Stage 2	-	-	-	-	-	-	265	273	-	53	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1336	-	-	1593	-	-	666	617	1056	637	624	818
Stage 1	-	-	-	-	-	-	998	878	-	742	691	-
Stage 2	-	-	-	-	-	-	740	684	-	960	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1336	-	-	1593	-	-	655	608	1056	592	615	818
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	608	-	592	615	-
Stage 1	-	-	-	-	-	-	998	878	-	742	681	-
Stage 2	-	-	-	-	-	-	725	674	-	901	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	8.9	11.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	998	1336	-	-	1593	-	-	612
HCM Lane V/C Ratio	0.071	-	-	-	0.013	-	-	0.069
HCM Control Delay (s)	8.9	0	-	-	7.3	0	-	11.3
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	125	0	5	13	0	0	0
Future Vol, veh/h	0	7	125	0	5	13	0	0	0
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	291	0	12	30	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	7.9	7.3
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	5%
Vol Thru, %	28%	0%
Vol Right, %	72%	95%
Sign Control	Stop	Stop
Traffic Vol by Lane	18	132
LT Vol	0	7
Through Vol	5	0
RT Vol	13	125
Lane Flow Rate	42	307
Geometry Grp	1	1
Degree of Util (X)	0.047	0.294
Departure Headway (Hd)	4.035	3.449
Convergence, Y/N	Yes	Yes
Cap	884	1044
Service Time	2.076	1.468
HCM Lane V/C Ratio	0.048	0.294
HCM Control Delay	7.3	7.9
HCM Lane LOS	A	A
HCM 95th-tile Q	0.1	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	30	85	130	10	55	25	815	150	35	730	45
Future Volume (veh/h)	125	30	85	130	10	55	25	815	150	35	730	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	70	198	160	12	68	26	849	156	37	777	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	419	288	244	355	23	131	392	1851	828	337	1873	838
Arrive On Green	0.16	0.15	0.15	0.10	0.09	0.09	0.03	0.52	0.52	0.03	0.53	0.00
Sat Flow, veh/h	1774	1863	1583	1774	243	1377	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	291	70	198	160	0	80	26	849	156	37	777	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1620	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.2	3.3	12.1	8.0	0.0	4.7	0.7	15.1	5.2	0.9	13.2	0.0
Cycle Q Clear(g_c), s	14.2	3.3	12.1	8.0	0.0	4.7	0.7	15.1	5.2	0.9	13.2	0.0
Prop In Lane	1.00		1.00	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	419	288	244	355	0	154	392	1851	828	337	1873	838
V/C Ratio(X)	0.69	0.24	0.81	0.45	0.00	0.52	0.07	0.46	0.19	0.11	0.41	0.00
Avail Cap(c_a), veh/h	419	559	475	461	0	486	666	1851	828	599	1873	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	37.1	40.9	35.6	0.0	43.1	11.2	15.0	12.6	11.3	14.2	0.0
Incr Delay (d2), s/veh	4.9	0.4	6.3	0.9	0.0	2.7	0.1	0.8	0.5	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	1.7	5.7	4.0	0.0	2.2	0.3	7.5	2.4	0.5	6.7	0.0
LnGrp Delay(d),s/veh	36.7	37.6	47.2	36.5	0.0	45.8	11.2	15.8	13.1	11.5	14.9	0.0
LnGrp LOS	D	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		559			240			1031			814	
Approach Delay, s/veh		40.5			39.6			15.3			14.7	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	59.3	14.1	19.4	6.6	59.9	20.0	13.5
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	2.9	17.1	10.0	14.1	2.7	15.2	16.2	6.7
Green Ext Time (p_c), s	0.0	0.0	0.2	1.4	0.0	1.4	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	31	975	915	28
Future Vol, veh/h	15	15	31	975	915	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	33	1026	963	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1541	482	963	0	-	0
Stage 1	963	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	106	530	711	-	-	-
Stage 1	331	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	101	530	711	-	-	-
Mov Cap-2 Maneuver	225	-	-	-	-	-
Stage 1	331	-	-	-	-	-
Stage 2	500	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	711	-	225	530	-	-
HCM Lane V/C Ratio	0.046	-	0.07	0.03	-	-
HCM Control Delay (s)	10.3	-	22.2	12	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	0	23	22	14	3	0	17	8	0	2
Future Vol, veh/h	0	5	0	23	22	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	0	27	26	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	42	0	0	6	0	0	95	102	6	104	94	34
Stage 1	-	-	-	-	-	-	6	6	-	88	88	-
Stage 2	-	-	-	-	-	-	89	96	-	16	6	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1567	-	-	1615	-	-	888	788	1077	876	796	1039
Stage 1	-	-	-	-	-	-	1016	891	-	920	822	-
Stage 2	-	-	-	-	-	-	918	815	-	1004	891	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1615	-	-	874	775	1077	849	782	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	775	-	849	782	-
Stage 1	-	-	-	-	-	-	1016	891	-	920	808	-
Stage 2	-	-	-	-	-	-	900	801	-	985	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.8	8.5	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1041	1567	-	-	1615	-	-	881
HCM Lane V/C Ratio	0.023	-	-	-	0.017	-	-	0.013
HCM Control Delay (s)	8.5	0	-	-	7.3	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	20	0	1	5	0	0	0
Future Vol, veh/h	0	7	20	0	1	5	0	0	0
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	34	0	2	9	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.7	6.6
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	26%
Vol Thru, %	17%	0%
Vol Right, %	83%	74%
Sign Control	Stop	Stop
Traffic Vol by Lane	6	27
LT Vol	0	7
Through Vol	1	0
RT Vol	5	20
Lane Flow Rate	10	47
Geometry Grp	1	1
Degree of Util (X)	0.01	0.046
Departure Headway (Hd)	3.514	3.559
Convergence, Y/N	Yes	Yes
Cap	1022	1012
Service Time	1.524	1.561
HCM Lane V/C Ratio	0.01	0.046
HCM Control Delay	6.6	6.7
HCM Lane LOS	A	A
HCM 95th-tile Q	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	30	10	185	85	55	40	735	140	35	775	180
Future Volume (veh/h)	155	30	10	185	85	55	40	735	140	35	775	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	310	60	20	237	109	71	46	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	295	251	482	140	91	312	1708	764	312	1702	761
Arrive On Green	0.16	0.16	0.16	0.13	0.13	0.13	0.04	0.48	0.48	0.03	0.48	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1055	687	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	310	60	20	237	0	180	46	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1742	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.9	2.8	1.1	11.3	0.0	10.0	1.3	16.2	5.9	1.2	18.6	0.0
Cycle Q Clear(g_c), s	14.9	2.8	1.1	11.3	0.0	10.0	1.3	16.2	5.9	1.2	18.6	0.0
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	295	251	482	0	232	312	1708	764	312	1702	761
V/C Ratio(X)	0.78	0.20	0.08	0.49	0.00	0.78	0.15	0.49	0.21	0.13	0.55	0.00
Avail Cap(c_a), veh/h	396	559	475	527	0	522	567	1708	764	570	1702	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.6	36.6	35.9	31.0	0.0	41.9	13.9	17.6	14.9	13.4	18.3	0.0
Incr Delay (d2), s/veh	9.9	0.3	0.1	0.8	0.0	5.5	0.2	1.0	0.6	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	1.5	0.5	5.6	0.0	5.2	0.6	8.1	2.7	0.6	9.4	0.0
LnGrp Delay(d),s/veh	40.5	36.9	36.0	31.7	0.0	47.5	14.1	18.6	15.5	13.6	19.6	0.0
LnGrp LOS	D	D	D	C		D	B	B	B	B	B	
Approach Vol, veh/h		390			417			1052			976	
Approach Delay, s/veh		39.7			38.5			17.9			19.3	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	55.3	17.5	19.8	7.6	55.1	20.0	17.3
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.2	18.2	13.3	4.8	3.3	20.6	16.9	12.0
Green Ext Time (p_c), s	0.0	0.0	0.2	1.5	0.1	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	80	122	880	945	25
Future Vol, veh/h	37	80	122	880	945	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	92	140	1011	1086	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1872	543	1086	0	-	0
Stage 1	1086	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	64	484	638	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	50	484	638	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	320	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.9	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	638	-	160	484	-	-
HCM Lane V/C Ratio	0.22	-	0.266	0.19	-	-
HCM Control Delay (s)	12.2	-	35.5	14.2	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.8	-	1	0.7	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	57	1	12	123	12	4	0	38	22	0	3
Future Vol, veh/h	0	57	1	12	123	12	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	97	2	20	208	20	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	229	0	0	98	0	0	359	366	97	389	357	219
Stage 1	-	-	-	-	-	-	97	97	-	259	259	-
Stage 2	-	-	-	-	-	-	262	269	-	130	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1339	-	-	1495	-	-	596	562	959	570	569	821
Stage 1	-	-	-	-	-	-	910	815	-	746	694	-
Stage 2	-	-	-	-	-	-	743	687	-	874	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1339	-	-	1495	-	-	586	554	959	526	560	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	586	554	-	526	560	-
Stage 1	-	-	-	-	-	-	910	815	-	746	684	-
Stage 2	-	-	-	-	-	-	727	677	-	815	814	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	9.3	12.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	904	1339	-	-	1495	-	-	550
HCM Lane V/C Ratio	0.079	-	-	-	0.014	-	-	0.077
HCM Control Delay (s)	9.3	0	-	-	7.4	0	-	12.1
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	5	125	0	5	13	0	45	2
Future Vol, veh/h	0	5	125	0	5	13	0	45	2
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	291	0	12	30	0	105	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	7.5	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	96%
Vol Thru, %	28%	0%	4%
Vol Right, %	72%	96%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	18	130	47
LT Vol	0	5	45
Through Vol	5	0	2
RT Vol	13	125	0
Lane Flow Rate	42	302	109
Geometry Grp	1	1	1
Degree of Util (X)	0.049	0.313	0.142
Departure Headway (Hd)	4.234	3.73	4.692
Convergence, Y/N	Yes	Yes	Yes
Cap	847	970	753
Service Time	2.252	1.731	2.792
HCM Lane V/C Ratio	0.05	0.311	0.145
HCM Control Delay	7.5	8.4	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1.3	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	30	20	130	10	55	25	815	150	35	730	45
Future Volume (veh/h)	125	30	20	130	10	55	25	815	150	35	730	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	70	47	160	12	68	26	849	156	37	777	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	252	214	351	19	107	408	1913	856	350	1935	866
Arrive On Green	0.16	0.14	0.14	0.10	0.08	0.08	0.03	0.54	0.54	0.03	0.55	0.00
Sat Flow, veh/h	1774	1863	1583	1774	243	1377	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	291	70	47	160	0	80	26	849	156	37	777	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1620	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.6	3.4	2.6	8.1	0.0	4.8	0.6	14.5	5.0	0.9	12.7	0.0
Cycle Q Clear(g_c), s	14.6	3.4	2.6	8.1	0.0	4.8	0.6	14.5	5.0	0.9	12.7	0.0
Prop In Lane	1.00		1.00	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	252	214	351	0	126	408	1913	856	350	1935	866
V/C Ratio(X)	0.74	0.28	0.22	0.46	0.00	0.64	0.06	0.44	0.18	0.11	0.40	0.00
Avail Cap(c_a), veh/h	395	559	475	454	0	486	681	1913	856	612	1935	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.3	38.8	38.5	37.0	0.0	44.8	10.3	13.9	11.7	10.5	13.2	0.0
Incr Delay (d2), s/veh	7.1	0.6	0.5	0.9	0.0	5.3	0.1	0.7	0.5	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	1.8	1.2	4.0	0.0	2.3	0.3	7.3	2.3	0.4	6.3	0.0
LnGrp Delay(d),s/veh	40.4	39.4	39.0	37.9	0.0	50.0	10.4	14.6	12.2	10.6	13.8	0.0
LnGrp LOS	D	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		408			240			1031			814	
Approach Delay, s/veh		40.1			42.0			14.2			13.6	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	61.0	14.2	17.5	6.6	61.7	20.0	11.8
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	2.9	16.5	10.1	5.4	2.6	14.7	16.6	6.8
Green Ext Time (p_c), s	0.0	0.4	0.2	1.0	0.0	1.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	80	31	975	850	25
Future Vol, veh/h	15	80	31	975	850	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	84	33	1026	895	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1473	447	895	0	-	0
Stage 1	895	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	118	559	754	-	-	-
Stage 1	359	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	559	754	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	359	-	-	-	-	-
Stage 2	501	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	754	-	241	559	-	-
HCM Lane V/C Ratio	0.043	-	0.066	0.151	-	-
HCM Control Delay (s)	10	-	21	12.6	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.5	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	70	0	23	19	14	3	0	17	8	0	2
Future Vol, veh/h	0	70	0	23	19	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	0	27	22	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	39	0	0	82	0	0	168	175	82	177	167	31
Stage 1	-	-	-	-	-	-	82	82	-	85	85	-
Stage 2	-	-	-	-	-	-	86	93	-	92	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1571	-	-	1515	-	-	796	718	978	785	726	1043
Stage 1	-	-	-	-	-	-	926	827	-	923	824	-
Stage 2	-	-	-	-	-	-	922	818	-	915	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1571	-	-	1515	-	-	783	705	978	758	713	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	783	705	-	758	713	-
Stage 1	-	-	-	-	-	-	926	827	-	923	809	-
Stage 2	-	-	-	-	-	-	903	803	-	896	827	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3	8.9	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	943	1571	-	-	1515	-	-	802
HCM Lane V/C Ratio	0.025	-	-	-	0.018	-	-	0.015
HCM Control Delay (s)	8.9	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	4	20	0	1	5	0	65	3
Future Vol, veh/h	0	4	20	0	1	5	0	65	3
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	34	0	2	9	0	112	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	6.9	6.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	17%	96%
Vol Thru, %	17%	0%	4%
Vol Right, %	83%	83%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	6	24	68
LT Vol	0	4	65
Through Vol	1	0	3
RT Vol	5	20	0
Lane Flow Rate	10	41	117
Geometry Grp	1	1	1
Degree of Util (X)	0.01	0.042	0.137
Departure Headway (Hd)	3.594	3.687	4.206
Convergence, Y/N	Yes	Yes	Yes
Cap	991	960	856
Service Time	1.632	1.753	2.217
HCM Lane V/C Ratio	0.01	0.043	0.137
HCM Control Delay	6.7	6.9	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	78	185	106	55	55	735	140	35	775	251
Future Volume (veh/h)	188	40	78	185	106	55	55	735	140	35	775	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	156	237	136	71	63	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	338	287	471	177	92	301	1636	732	297	1612	721
Arrive On Green	0.16	0.18	0.18	0.13	0.15	0.15	0.04	0.46	0.46	0.03	0.46	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1154	602	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	156	237	0	207	63	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1756	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	3.7	8.9	11.0	0.0	11.3	1.9	16.9	6.1	1.2	19.5	0.0
Cycle Q Clear(g_c), s	16.0	3.7	8.9	11.0	0.0	11.3	1.9	16.9	6.1	1.2	19.5	0.0
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	338	287	471	0	269	301	1636	732	297	1612	721
V/C Ratio(X)	0.93	0.24	0.54	0.50	0.00	0.77	0.21	0.52	0.22	0.14	0.58	0.00
Avail Cap(c_a), veh/h	403	559	475	521	0	527	547	1636	732	555	1612	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	35.0	37.2	29.5	0.0	40.6	15.3	19.0	16.1	14.7	20.1	0.0
Incr Delay (d2), s/veh	28.7	0.4	1.6	0.8	0.0	4.6	0.3	1.2	0.7	0.2	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	1.9	4.0	5.4	0.0	5.8	0.9	8.5	2.8	0.6	9.8	0.0
LnGrp Delay(d),s/veh	60.2	35.4	38.8	30.3	0.0	45.2	15.6	20.2	16.8	15.0	21.7	0.0
LnGrp LOS	E	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		612			444			1069			976	
Approach Delay, s/veh		51.5			37.3			19.4			21.4	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	53.2	17.2	22.1	8.1	52.5	20.0	19.3
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.2	18.9	13.0	10.9	3.9	21.5	18.0	13.3
Green Ext Time (p_c), s	0.0	0.0	0.2	2.1	0.1	0.0	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	35	157	895	1013	27
Future Vol, veh/h	37	35	157	895	1013	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	40	180	1029	1164	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2039	582	1164	0	-	0
Stage 1	1164	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	49	456	596	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 34	456	596	-	-	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	257	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.4	2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	596	-	133	456	-	-
HCM Lane V/C Ratio	0.303	-	0.32	0.088	-	-
HCM Control Delay (s)	13.6	-	44.3	13.7	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	1.3	-	1.3	0.3	-	-

Notes

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

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	12	160	12	4	0	38	22	0	3
Future Vol, veh/h	0	12	1	12	160	12	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	2	20	271	20	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	22	0	0	346	353	21	375	344	281
Stage 1	-	-	-	-	-	-	21	21	-	322	322	-
Stage 2	-	-	-	-	-	-	325	332	-	53	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1270	-	-	1593	-	-	608	572	1056	582	579	758
Stage 1	-	-	-	-	-	-	998	878	-	690	651	-
Stage 2	-	-	-	-	-	-	687	644	-	960	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1593	-	-	597	563	1056	540	570	758
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	563	-	540	570	-
Stage 1	-	-	-	-	-	-	998	878	-	690	641	-
Stage 2	-	-	-	-	-	-	672	634	-	901	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	8.9	12
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	984	1270	-	-	1593	-	-	559
HCM Lane V/C Ratio	0.072	-	-	-	0.013	-	-	0.076
HCM Control Delay (s)	8.9	0	-	-	7.3	0	-	12
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	160	0	5	13	0	0	0
Future Vol, veh/h	0	7	160	0	5	13	0	0	0
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	372	0	12	30	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	8.5	7.4
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	4%
Vol Thru, %	28%	0%
Vol Right, %	72%	96%
Sign Control	Stop	Stop
Traffic Vol by Lane	18	167
LT Vol	0	7
Through Vol	5	0
RT Vol	13	160
Lane Flow Rate	42	388
Geometry Grp	1	1
Degree of Util (X)	0.049	0.371
Departure Headway (Hd)	4.176	3.44
Convergence, Y/N	Yes	Yes
Cap	852	1045
Service Time	2.227	1.463
HCM Lane V/C Ratio	0.049	0.371
HCM Control Delay	7.4	8.5
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	118	130	17	55	30	815	150	35	730	68
Future Volume (veh/h)	172	44	118	130	17	55	30	815	150	35	730	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	274	160	21	68	31	849	156	37	777	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	378	321	383	54	175	355	1693	757	304	1704	762
Arrive On Green	0.16	0.20	0.20	0.10	0.14	0.14	0.03	0.48	0.48	0.03	0.48	0.00
Sat Flow, veh/h	1774	1863	1583	1774	387	1254	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	274	160	0	89	31	849	156	37	777	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1641	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	4.6	16.7	7.6	0.0	4.9	0.9	16.5	5.7	1.0	14.6	0.0
Cycle Q Clear(g_c), s	16.0	4.6	16.7	7.6	0.0	4.9	0.9	16.5	5.7	1.0	14.6	0.0
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	473	378	321	383	0	229	355	1693	757	304	1704	762
V/C Ratio(X)	0.84	0.27	0.85	0.42	0.00	0.39	0.09	0.50	0.21	0.12	0.46	0.00
Avail Cap(c_a), veh/h	473	559	475	496	0	492	624	1693	757	566	1704	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	33.6	38.4	32.1	0.0	39.1	13.4	17.9	15.1	13.7	17.2	0.0
Incr Delay (d2), s/veh	13.2	0.4	9.5	0.7	0.0	1.1	0.1	1.1	0.6	0.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	2.4	8.1	3.7	0.0	2.3	0.4	8.3	2.6	0.5	7.3	0.0
LnGrp Delay(d),s/veh	44.9	34.0	48.0	32.8	0.0	40.2	13.5	19.0	15.7	13.9	18.1	0.0
LnGrp LOS	D	C	D	C		D	B	B	B	B	B	
Approach Vol, veh/h		776			249			1036			814	
Approach Delay, s/veh		44.5			35.4			18.3			17.9	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	54.8	13.7	24.3	6.9	55.2	20.0	18.0
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.0	18.5	9.6	18.7	2.9	16.6	18.0	6.9
Green Ext Time (p_c), s	0.0	0.0	0.2	1.6	0.0	0.4	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	42	980	948	28
Future Vol, veh/h	15	15	42	980	948	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	44	1032	998	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1602	499	998	0	-	0
Stage 1	998	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	96	517	689	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	90	517	689	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	476	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	689	-	213	517	-	-
HCM Lane V/C Ratio	0.064	-	0.074	0.031	-	-
HCM Control Delay (s)	10.6	-	23.3	12.2	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	0	23	33	14	3	0	17	8	0	2
Future Vol, veh/h	0	5	0	23	33	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	0	27	39	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	6	0	0	108	115	6	117	107	47
Stage 1	-	-	-	-	-	-	6	6	-	101	101	-
Stage 2	-	-	-	-	-	-	102	109	-	16	6	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1615	-	-	871	775	1077	859	783	1022
Stage 1	-	-	-	-	-	-	1016	891	-	905	811	-
Stage 2	-	-	-	-	-	-	904	805	-	1004	891	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1550	-	-	1615	-	-	858	762	1077	832	770	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	858	762	-	832	770	-
Stage 1	-	-	-	-	-	-	1016	891	-	905	797	-
Stage 2	-	-	-	-	-	-	887	791	-	985	891	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	8.6	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1037	1550	-	-	1615	-	-	864
HCM Lane V/C Ratio	0.023	-	-	-	0.017	-	-	0.014
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	31	0	1	5	0	0	0
Future Vol, veh/h	0	7	31	0	1	5	0	0	0
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	53	0	2	9	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.7	6.6
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	18%
Vol Thru, %	17%	0%
Vol Right, %	83%	82%
Sign Control	Stop	Stop
Traffic Vol by Lane	6	38
LT Vol	0	7
Through Vol	1	0
RT Vol	5	31
Lane Flow Rate	10	66
Geometry Grp	1	1
Degree of Util (X)	0.01	0.064
Departure Headway (Hd)	3.548	3.499
Convergence, Y/N	Yes	Yes
Cap	1012	1029
Service Time	1.559	1.501
HCM Lane V/C Ratio	0.01	0.064
HCM Control Delay	6.6	6.7
HCM Lane LOS	A	A
HCM 95th-tile Q	0	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	78	185	106	55	55	735	140	35	775	251
Future Volume (veh/h)	188	40	78	185	106	55	55	735	140	35	775	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	156	237	136	71	63	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	420	355	301	481	176	92	293	1602	717	290	1578	706
Arrive On Green	0.17	0.19	0.19	0.13	0.15	0.15	0.04	0.45	0.45	0.03	0.45	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1154	602	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	156	237	0	207	63	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1756	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	3.6	8.8	11.0	0.0	11.3	1.9	17.2	6.2	1.3	19.9	0.0
Cycle Q Clear(g_c), s	17.0	3.6	8.8	11.0	0.0	11.3	1.9	17.2	6.2	1.3	19.9	0.0
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	355	301	481	0	269	293	1602	717	290	1578	706
V/C Ratio(X)	0.90	0.23	0.52	0.49	0.00	0.77	0.22	0.53	0.22	0.14	0.59	0.00
Avail Cap(c_a), veh/h	420	540	459	548	0	509	539	1602	717	548	1578	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.3	34.2	36.4	29.5	0.0	40.7	15.8	19.7	16.7	15.3	20.9	0.0
Incr Delay (d2), s/veh	21.1	0.3	1.4	0.8	0.0	4.7	0.4	1.2	0.7	0.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.9	4.0	5.4	0.0	5.8	0.9	8.6	2.9	0.6	10.1	0.0
LnGrp Delay(d),s/veh	50.4	34.6	37.7	30.2	0.0	45.3	16.2	20.9	17.4	15.5	22.5	0.0
LnGrp LOS	D	C	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		612			444			1069			976	
Approach Delay, s/veh		45.1			37.3			20.1			22.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	52.3	17.3	23.0	8.1	51.6	21.0	19.3
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	3.3	19.2	13.0	10.8	3.9	21.9	19.0	13.3
Green Ext Time (p_c), s	0.0	0.0	0.3	2.1	0.1	0.0	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	13	185	106	55	55	735	140	35	775	251
Future Volume (veh/h)	188	40	13	185	106	55	55	735	140	35	775	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	26	237	136	71	63	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	329	280	486	172	90	304	1650	738	300	1626	727
Arrive On Green	0.16	0.18	0.18	0.13	0.15	0.15	0.04	0.47	0.47	0.03	0.46	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1154	602	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	26	237	0	207	63	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1756	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	3.7	1.4	11.1	0.0	11.4	1.8	16.7	6.0	1.2	19.4	0.0
Cycle Q Clear(g_c), s	16.0	3.7	1.4	11.1	0.0	11.4	1.8	16.7	6.0	1.2	19.4	0.0
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	398	329	280	486	0	262	304	1650	738	300	1626	727
V/C Ratio(X)	0.95	0.24	0.09	0.49	0.00	0.79	0.21	0.51	0.22	0.14	0.57	0.00
Avail Cap(c_a), veh/h	398	559	475	535	0	527	550	1650	738	558	1626	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.9	35.4	34.5	29.8	0.0	41.0	15.0	18.7	15.9	14.5	19.9	0.0
Incr Delay (d2), s/veh	31.5	0.4	0.1	0.8	0.0	5.3	0.3	1.1	0.7	0.2	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	1.9	0.6	5.4	0.0	5.9	0.9	8.4	2.7	0.6	9.8	0.0
LnGrp Delay(d),s/veh	63.5	35.8	34.6	30.5	0.0	46.3	15.4	19.8	16.5	14.7	21.3	0.0
LnGrp LOS	E	D	C	C		D	B	B	B	B	C	
Approach Vol, veh/h		482			444			1069			976	
Approach Delay, s/veh		57.3			37.9			19.1			21.1	
Approach LOS		E			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	53.6	17.3	21.7	8.1	52.9	20.0	18.9
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.2	18.7	13.1	5.7	3.8	21.4	18.0	13.4
Green Ext Time (p_c), s	0.0	0.0	0.2	1.8	0.1	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	100	157	895	948	25
Future Vol, veh/h	37	100	157	895	948	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	115	180	1029	1090	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1965	545	1090	0	-	0
Stage 1	1090	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	55	482	636	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 39	482	636	-	-	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.7	1.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	636	-	143	482	-	-
HCM Lane V/C Ratio	0.284	-	0.297	0.238	-	-
HCM Control Delay (s)	12.9	-	40.5	14.8	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	1.2	-	1.2	0.9	-	-

Notes

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

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	77	1	12	158	12	4	0	38	22	0	3
Future Vol, veh/h	0	77	1	12	158	12	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	131	2	20	268	20	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	288	0	0	132	0	0	452	460	131	483	451	278
Stage 1	-	-	-	-	-	-	131	131	-	319	319	-
Stage 2	-	-	-	-	-	-	321	329	-	164	132	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1274	-	-	1453	-	-	518	498	919	494	504	761
Stage 1	-	-	-	-	-	-	873	788	-	693	653	-
Stage 2	-	-	-	-	-	-	691	646	-	838	787	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1274	-	-	1453	-	-	508	490	919	454	496	761
Mov Cap-2 Maneuver	-	-	-	-	-	-	508	490	-	454	496	-
Stage 1	-	-	-	-	-	-	873	788	-	693	643	-
Stage 2	-	-	-	-	-	-	675	636	-	779	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	9.6	13.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	853	1274	-	-	1453	-	-	477
HCM Lane V/C Ratio	0.083	-	-	-	0.014	-	-	0.089
HCM Control Delay (s)	9.6	0	-	-	7.5	0	-	13.3
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	5	160	0	5	13	0	65	2
Future Vol, veh/h	0	5	160	0	5	13	0	65	2
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	372	0	12	30	0	151	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.5	7.8	9.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	3%	97%
Vol Thru, %	28%	0%	3%
Vol Right, %	72%	97%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	18	165	67
LT Vol	0	5	65
Through Vol	5	0	2
RT Vol	13	160	0
Lane Flow Rate	42	384	156
Geometry Grp	1	1	1
Degree of Util (X)	0.052	0.411	0.215
Departure Headway (Hd)	4.483	3.855	4.957
Convergence, Y/N	Yes	Yes	Yes
Cap	796	936	723
Service Time	2.524	1.87	2.993
HCM Lane V/C Ratio	0.053	0.41	0.216
HCM Control Delay	7.8	9.5	9.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	2	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	28	130	17	55	30	815	150	35	730	68
Future Volume (veh/h)	172	44	28	130	17	55	30	815	150	35	730	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	65	160	21	68	31	849	156	37	777	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	268	228	355	33	107	404	1886	844	344	1897	849
Arrive On Green	0.16	0.14	0.14	0.10	0.09	0.09	0.03	0.53	0.53	0.03	0.54	0.00
Sat Flow, veh/h	1774	1863	1583	1774	387	1254	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	65	160	0	89	31	849	156	37	777	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1641	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	5.0	3.7	8.1	0.0	5.2	0.8	14.7	5.1	0.9	13.1	0.0
Cycle Q Clear(g_c), s	16.0	5.0	3.7	8.1	0.0	5.2	0.8	14.7	5.1	0.9	13.1	0.0
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	398	268	228	355	0	140	404	1886	844	344	1897	849
V/C Ratio(X)	1.00	0.38	0.29	0.45	0.00	0.64	0.08	0.45	0.18	0.11	0.41	0.00
Avail Cap(c_a), veh/h	398	559	475	459	0	492	672	1886	844	607	1897	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.6	38.8	38.2	36.4	0.0	44.3	10.6	14.4	12.1	10.8	13.8	0.0
Incr Delay (d2), s/veh	46.1	0.9	0.7	0.9	0.0	4.8	0.1	0.8	0.5	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.6	1.6	4.0	0.0	2.6	0.4	7.4	2.3	0.5	6.5	0.0
LnGrp Delay(d),s/veh	82.8	39.7	38.9	37.3	0.0	49.0	10.7	15.1	12.6	11.0	14.4	0.0
LnGrp LOS	F	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		567			249			1036			814	
Approach Delay, s/veh		70.0			41.5			14.6			14.3	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	60.3	14.1	18.4	6.9	60.6	20.0	12.5
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	2.9	16.7	10.1	7.0	2.8	15.1	18.0	7.2
Green Ext Time (p_c), s	0.0	0.2	0.2	1.3	0.0	1.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	105	42	980	858	25
Future Vol, veh/h	15	105	42	980	858	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	111	44	1032	903	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1507	452	903	0	-	0
Stage 1	903	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	112	555	749	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	105	555	749	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	478	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	749	-	233	555	-	-
HCM Lane V/C Ratio	0.059	-	0.068	0.199	-	-
HCM Control Delay (s)	10.1	-	21.6	13.1	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0.7	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	95	0	23	30	14	3	0	17	8	0	2
Future Vol, veh/h	0	95	0	23	30	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	112	0	27	35	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	112	0	0	211	218	112	220	210	44
Stage 1	-	-	-	-	-	-	112	112	-	98	98	-
Stage 2	-	-	-	-	-	-	99	106	-	122	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1478	-	-	746	680	941	736	687	1026
Stage 1	-	-	-	-	-	-	893	803	-	908	814	-
Stage 2	-	-	-	-	-	-	907	807	-	882	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1478	-	-	733	667	941	710	674	1026
Mov Cap-2 Maneuver	-	-	-	-	-	-	733	667	-	710	674	-
Stage 1	-	-	-	-	-	-	893	803	-	908	799	-
Stage 2	-	-	-	-	-	-	888	792	-	863	803	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.6	9.1	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	903	1554	-	-	1478	-	-	757
HCM Lane V/C Ratio	0.026	-	-	-	0.018	-	-	0.016
HCM Control Delay (s)	9.1	0	-	-	7.5	0	-	9.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	4	31	0	1	5	0	90	3
Future Vol, veh/h	0	4	31	0	1	5	0	90	3
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	53	0	2	9	0	155	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.1	6.8	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	11%	97%
Vol Thru, %	17%	0%	3%
Vol Right, %	83%	89%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	6	35	93
LT Vol	0	4	90
Through Vol	1	0	3
RT Vol	5	31	0
Lane Flow Rate	10	60	160
Geometry Grp	1	1	1
Degree of Util (X)	0.011	0.062	0.189
Departure Headway (Hd)	3.662	3.72	4.242
Convergence, Y/N	Yes	Yes	Yes
Cap	969	945	848
Service Time	1.717	1.813	2.26
HCM Lane V/C Ratio	0.01	0.063	0.189
HCM Control Delay	6.8	7.1	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.2	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	13	185	106	55	55	735	140	35	775	251
Future Volume (veh/h)	188	40	13	185	106	55	55	735	140	35	775	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	26	237	136	71	63	845	161	42	934	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	346	294	499	172	90	296	1616	723	293	1592	712
Arrive On Green	0.17	0.19	0.19	0.13	0.15	0.15	0.04	0.46	0.46	0.03	0.45	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1154	602	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	26	237	0	207	63	845	161	42	934	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1756	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	3.7	1.4	11.1	0.0	11.4	1.9	17.0	6.2	1.3	19.7	0.0
Cycle Q Clear(g_c), s	17.0	3.7	1.4	11.1	0.0	11.4	1.9	17.0	6.2	1.3	19.7	0.0
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	346	294	499	0	262	296	1616	723	293	1592	712
V/C Ratio(X)	0.91	0.23	0.09	0.47	0.00	0.79	0.21	0.52	0.22	0.14	0.59	0.00
Avail Cap(c_a), veh/h	415	540	459	565	0	509	542	1616	723	551	1592	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.7	34.6	33.7	29.8	0.0	41.1	15.6	19.4	16.4	15.1	20.6	0.0
Incr Delay (d2), s/veh	23.1	0.3	0.1	0.7	0.0	5.3	0.4	1.2	0.7	0.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.9	0.6	5.5	0.0	5.9	0.9	8.6	2.8	0.6	10.0	0.0
LnGrp Delay(d),s/veh	52.8	35.0	33.8	30.5	0.0	46.4	16.0	20.6	17.1	15.3	22.2	0.0
LnGrp LOS	D	C	C	C		D	B	C	B	B	C	
Approach Vol, veh/h		482			444			1069			976	
Approach Delay, s/veh		48.8			37.9			19.8			21.9	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	52.7	17.3	22.6	8.1	52.0	21.0	18.9
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	3.3	19.0	13.1	5.7	3.9	21.7	19.0	13.4
Green Ext Time (p_c), s	0.0	0.0	0.2	1.8	0.1	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	28	130	17	55	30	815	150	35	730	68
Future Volume (veh/h)	172	44	28	130	17	55	30	815	150	35	730	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	65	160	21	68	31	849	156	37	777	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	286	243	355	33	107	395	1851	828	337	1862	833
Arrive On Green	0.17	0.15	0.15	0.10	0.08	0.08	0.03	0.52	0.52	0.03	0.53	0.00
Sat Flow, veh/h	1774	1863	1583	1774	387	1254	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	65	160	0	89	31	849	156	37	777	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1641	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	4.9	3.6	8.1	0.0	5.2	0.8	15.1	5.2	0.9	13.3	0.0
Cycle Q Clear(g_c), s	17.0	4.9	3.6	8.1	0.0	5.2	0.8	15.1	5.2	0.9	13.3	0.0
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	286	243	355	0	139	395	1851	828	337	1862	833
V/C Ratio(X)	0.96	0.36	0.27	0.45	0.00	0.64	0.08	0.46	0.19	0.11	0.42	0.00
Avail Cap(c_a), veh/h	416	540	459	477	0	476	663	1851	828	599	1862	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.5	37.9	37.4	36.4	0.0	44.3	11.1	15.0	12.6	11.3	14.4	0.0
Incr Delay (d2), s/veh	34.2	0.8	0.6	0.9	0.0	4.8	0.1	0.8	0.5	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	2.6	1.6	4.0	0.0	2.6	0.4	7.5	2.4	0.5	6.7	0.0
LnGrp Delay(d),s/veh	69.7	38.7	38.0	37.3	0.0	49.1	11.2	15.8	13.1	11.5	15.1	0.0
LnGrp LOS	E	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		567			249			1036			814	
Approach Delay, s/veh		60.5			41.5			15.3			14.9	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	59.3	14.2	19.3	6.9	59.6	21.0	12.5
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	2.9	17.1	10.1	6.9	2.8	15.3	19.0	7.2
Green Ext Time (p_c), s	0.0	0.0	0.2	1.3	0.0	1.4	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	30	55	220	85	65	40	870	165	40	915	180
Future Volume (veh/h)	155	30	55	220	85	65	40	870	165	40	915	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	310	60	110	282	109	83	46	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	280	238	492	141	107	254	1662	743	259	1664	745
Arrive On Green	0.16	0.15	0.15	0.15	0.14	0.14	0.04	0.47	0.47	0.04	0.47	0.00
Sat Flow, veh/h	1774	1863	1583	1774	983	748	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	310	60	110	282	0	192	46	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1731	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.7	2.8	6.3	13.3	0.0	10.7	1.3	20.9	7.2	1.4	24.0	0.0
Cycle Q Clear(g_c), s	14.7	2.8	6.3	13.3	0.0	10.7	1.3	20.9	7.2	1.4	24.0	0.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	280	238	492	0	249	254	1662	743	259	1664	745
V/C Ratio(X)	0.78	0.21	0.46	0.57	0.00	0.77	0.18	0.60	0.26	0.18	0.66	0.00
Avail Cap(c_a), veh/h	400	559	475	503	0	519	509	1662	743	513	1664	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	37.3	38.8	29.4	0.0	41.2	15.7	19.6	16.0	15.0	20.4	0.0
Incr Delay (d2), s/veh	9.3	0.4	1.4	1.5	0.0	5.1	0.3	1.6	0.8	0.3	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	1.5	2.9	6.6	0.0	5.5	0.7	10.5	3.3	0.7	12.1	0.0
LnGrp Delay(d),s/veh	39.4	37.7	40.2	30.9	0.0	46.3	16.0	21.2	16.8	15.3	22.5	0.0
LnGrp LOS	D	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		480			474			1236			1150	
Approach Delay, s/veh		39.4			37.1			20.4			22.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	54.0	19.3	19.0	7.6	54.0	20.0	18.4
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.4	22.9	15.3	8.3	3.3	26.0	16.7	12.7
Green Ext Time (p_c), s	0.1	0.0	0.1	1.8	0.1	0.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	39	125	1035	1160	30
Future Vol, veh/h	40	39	125	1035	1160	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	45	144	1190	1333	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2215	667	1333	0	-	0
Stage 1	1333	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 37	401	513	-	-	-
Stage 1	211	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 27	401	513	-	-	-
Mov Cap-2 Maneuver	119	-	-	-	-	-
Stage 1	211	-	-	-	-	-
Stage 2	263	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.3	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	513	-	119	401	-	-
HCM Lane V/C Ratio	0.28	-	0.386	0.112	-	-
HCM Control Delay (s)	14.7	-	53.1	15.1	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.1	-	1.6	0.4	-	-

Notes

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

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	19	1	12	130	13	4	0	38	22	0	3
Future Vol, veh/h	0	19	1	12	130	13	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	2	20	220	22	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	242	0	0	34	0	0	308	316	33	337	306	231
Stage 1	-	-	-	-	-	-	33	33	-	272	272	-
Stage 2	-	-	-	-	-	-	275	283	-	65	34	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1324	-	-	1578	-	-	644	600	1041	617	608	808
Stage 1	-	-	-	-	-	-	983	868	-	734	685	-
Stage 2	-	-	-	-	-	-	731	677	-	946	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1324	-	-	1578	-	-	633	591	1041	572	599	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	633	591	-	572	599	-
Stage 1	-	-	-	-	-	-	983	868	-	734	675	-
Stage 2	-	-	-	-	-	-	716	667	-	887	867	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	9	11.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	981	1324	-	-	1578	-	-	593
HCM Lane V/C Ratio	0.073	-	-	-	0.013	-	-	0.071
HCM Control Delay (s)	9	0	-	-	7.3	0	-	11.5
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	12	125	0	5	20	0	0	0
Future Vol, veh/h	0	12	125	0	5	20	0	0	0
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	291	0	12	47	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	8.1	7.3
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	9%
Vol Thru, %	20%	0%
Vol Right, %	80%	91%
Sign Control	Stop	Stop
Traffic Vol by Lane	25	137
LT Vol	0	12
Through Vol	5	0
RT Vol	20	125
Lane Flow Rate	58	319
Geometry Grp	1	1
Degree of Util (X)	0.065	0.31
Departure Headway (Hd)	4.008	3.506
Convergence, Y/N	Yes	Yes
Cap	887	1026
Service Time	2.061	1.531
HCM Lane V/C Ratio	0.065	0.311
HCM Control Delay	7.3	8.1
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	30	85	155	10	65	25	965	175	40	865	45
Future Volume (veh/h)	125	30	85	155	10	65	25	965	175	40	865	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	70	198	191	12	80	26	1005	182	43	920	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	289	245	398	23	155	326	1788	800	279	1820	814
Arrive On Green	0.16	0.16	0.16	0.11	0.11	0.11	0.03	0.51	0.51	0.03	0.51	0.00
Sat Flow, veh/h	1774	1863	1583	1774	211	1404	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	291	70	198	191	0	92	26	1005	182	43	920	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1615	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	13.9	3.3	12.1	9.3	0.0	5.4	0.7	19.6	6.4	1.1	17.1	0.0
Cycle Q Clear(g_c), s	13.9	3.3	12.1	9.3	0.0	5.4	0.7	19.6	6.4	1.1	17.1	0.0
Prop In Lane	1.00		1.00	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	289	245	398	0	179	326	1788	800	279	1820	814
V/C Ratio(X)	0.68	0.24	0.81	0.48	0.00	0.51	0.08	0.56	0.23	0.15	0.51	0.00
Avail Cap(c_a), veh/h	430	559	475	478	0	484	599	1788	800	537	1820	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	37.1	40.8	33.6	0.0	41.9	12.5	17.1	13.8	13.0	15.9	0.0
Incr Delay (d2), s/veh	4.3	0.4	6.2	0.9	0.0	2.3	0.1	1.3	0.7	0.3	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	1.7	5.7	4.6	0.0	2.5	0.3	9.8	3.0	0.6	8.6	0.0
LnGrp Delay(d),s/veh	34.8	37.5	47.0	34.5	0.0	44.2	12.6	18.4	14.5	13.2	16.9	0.0
LnGrp LOS	C	D	D	C		D	B	B	B	B	B	
Approach Vol, veh/h		559			283			1213			963	
Approach Delay, s/veh		39.4			37.7			17.7			16.8	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	57.5	15.5	19.5	6.6	58.4	19.9	15.1
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.1	21.6	11.3	14.1	2.7	19.1	15.9	7.4
Green Ext Time (p_c), s	0.1	0.0	0.2	1.4	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	18	32	1150	1075	30
Future Vol, veh/h	17	18	32	1150	1075	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	19	34	1211	1132	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1805	566	1132	0	-	0
Stage 1	1132	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	71	467	613	-	-	-
Stage 1	270	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	67	467	613	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	270	-	-	-	-	-
Stage 2	442	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.8	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	613	-	181	467	-	-
HCM Lane V/C Ratio	0.055	-	0.099	0.041	-	-
HCM Control Delay (s)	11.2	-	27.1	13	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	10	0	23	25	14	3	0	17	8	0	2
Future Vol, veh/h	0	10	0	23	25	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	0	27	29	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	12	0	0	105	112	12	114	104	38
Stage 1	-	-	-	-	-	-	12	12	-	92	92	-
Stage 2	-	-	-	-	-	-	93	100	-	22	12	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1562	-	-	1607	-	-	875	778	1069	863	786	1034
Stage 1	-	-	-	-	-	-	1009	886	-	915	819	-
Stage 2	-	-	-	-	-	-	914	812	-	996	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1562	-	-	1607	-	-	862	765	1069	836	773	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	862	765	-	836	773	-
Stage 1	-	-	-	-	-	-	1009	886	-	915	805	-
Stage 2	-	-	-	-	-	-	896	798	-	977	886	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	8.6	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1032	1562	-	-	1607	-	-	869
HCM Lane V/C Ratio	0.023	-	-	-	0.017	-	-	0.014
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	10	20	0	1	10	0	0	0
Future Vol, veh/h	0	10	20	0	1	10	0	0	0
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	34	0	2	17	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.8	6.6
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	33%
Vol Thru, %	9%	0%
Vol Right, %	91%	67%
Sign Control	Stop	Stop
Traffic Vol by Lane	11	30
LT Vol	0	10
Through Vol	1	0
RT Vol	10	20
Lane Flow Rate	19	52
Geometry Grp	1	1
Degree of Util (X)	0.018	0.052
Departure Headway (Hd)	3.479	3.634
Convergence, Y/N	Yes	Yes
Cap	1032	991
Service Time	1.49	1.636
HCM Lane V/C Ratio	0.018	0.052
HCM Control Delay	6.6	6.8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.1	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	30	10	220	85	65	40	870	165	40	915	180
Future Volume (veh/h)	155	30	10	220	85	65	40	870	165	40	915	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	310	60	20	282	109	83	46	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	274	233	501	138	105	256	1672	748	261	1674	749
Arrive On Green	0.16	0.15	0.15	0.15	0.14	0.14	0.04	0.47	0.47	0.04	0.47	0.00
Sat Flow, veh/h	1774	1863	1583	1774	983	748	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	310	60	20	282	0	192	46	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1731	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.8	2.8	1.1	13.3	0.0	10.7	1.3	20.8	7.2	1.4	23.8	0.0
Cycle Q Clear(g_c), s	14.8	2.8	1.1	13.3	0.0	10.7	1.3	20.8	7.2	1.4	23.8	0.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	274	233	501	0	244	256	1672	748	261	1674	749
V/C Ratio(X)	0.78	0.22	0.09	0.56	0.00	0.79	0.18	0.60	0.25	0.18	0.66	0.00
Avail Cap(c_a), veh/h	396	559	475	512	0	519	511	1672	748	515	1674	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	37.6	36.8	29.6	0.0	41.5	15.5	19.4	15.8	14.8	20.2	0.0
Incr Delay (d2), s/veh	9.8	0.4	0.2	1.4	0.0	5.6	0.3	1.6	0.8	0.3	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	1.5	0.5	6.6	0.0	5.5	0.6	10.5	3.3	0.7	12.1	0.0
LnGrp Delay(d),s/veh	40.2	38.0	37.0	31.0	0.0	47.1	15.8	21.0	16.6	15.1	22.2	0.0
LnGrp LOS	D	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		390			474			1236			1150	
Approach Delay, s/veh		39.7			37.5			20.1			21.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	54.2	19.4	18.7	7.6	54.3	20.0	18.1
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.4	22.8	15.3	4.8	3.3	25.8	16.8	12.7
Green Ext Time (p_c), s	0.1	0.0	0.1	1.6	0.1	0.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	84	125	1035	1115	28
Future Vol, veh/h	40	84	125	1035	1115	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	97	144	1190	1282	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2164	641	1282	0	-	0
Stage 1	1282	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 40	417	537	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 29	417	537	-	-	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.2	1.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	537	-	124	417	-	-
HCM Lane V/C Ratio	0.268	-	0.371	0.232	-	-
HCM Control Delay (s)	14.1	-	50.2	16.2	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.1	-	1.5	0.9	-	-

Notes

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

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	64	1	12	128	13	4	0	38	22	0	3
Future Vol, veh/h	0	64	1	12	128	13	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	108	2	20	217	22	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	110	0	0	380	389	109	411	379	228
Stage 1	-	-	-	-	-	-	109	109	-	269	269	-
Stage 2	-	-	-	-	-	-	271	280	-	142	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1328	-	-	1480	-	-	578	546	945	551	553	811
Stage 1	-	-	-	-	-	-	896	805	-	737	687	-
Stage 2	-	-	-	-	-	-	735	679	-	861	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1328	-	-	1480	-	-	567	537	945	507	544	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	537	-	507	544	-
Stage 1	-	-	-	-	-	-	896	805	-	737	676	-
Stage 2	-	-	-	-	-	-	719	668	-	802	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	9.4	12.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	889	1328	-	-	1480	-	-	531
HCM Lane V/C Ratio	0.08	-	-	-	0.014	-	-	0.08
HCM Control Delay (s)	9.4	0	-	-	7.5	0	-	12.4
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	10	125	0	5	20	0	45	2
Future Vol, veh/h	0	10	125	0	5	20	0	45	2
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	291	0	12	47	0	105	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.7	7.6	8.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	7%	96%
Vol Thru, %	20%	0%	4%
Vol Right, %	80%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	25	135	47
LT Vol	0	10	45
Through Vol	5	0	2
RT Vol	20	125	0
Lane Flow Rate	58	314	109
Geometry Grp	1	1	1
Degree of Util (X)	0.068	0.331	0.147
Departure Headway (Hd)	4.223	3.795	4.846
Convergence, Y/N	Yes	Yes	Yes
Cap	849	951	744
Service Time	2.246	1.805	2.846
HCM Lane V/C Ratio	0.068	0.33	0.147
HCM Control Delay	7.6	8.7	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	1.5	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	30	20	155	10	65	25	965	175	40	865	45
Future Volume (veh/h)	125	30	20	155	10	65	25	965	175	40	865	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	70	47	191	12	80	26	1005	182	43	920	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	238	203	389	18	120	346	1874	839	295	1907	853
Arrive On Green	0.16	0.13	0.13	0.12	0.09	0.09	0.03	0.53	0.53	0.03	0.54	0.00
Sat Flow, veh/h	1774	1863	1583	1774	211	1404	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	291	70	47	191	0	92	26	1005	182	43	920	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1615	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	14.4	3.4	2.7	9.6	0.0	5.5	0.7	18.7	6.1	1.1	16.2	0.0
Cycle Q Clear(g_c), s	14.4	3.4	2.7	9.6	0.0	5.5	0.7	18.7	6.1	1.1	16.2	0.0
Prop In Lane	1.00		1.00	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	238	203	389	0	138	346	1874	839	295	1907	853
V/C Ratio(X)	0.74	0.29	0.23	0.49	0.00	0.67	0.08	0.54	0.22	0.15	0.48	0.00
Avail Cap(c_a), veh/h	395	559	475	464	0	484	619	1874	839	553	1907	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	39.5	39.2	35.6	0.0	44.3	11.3	15.5	12.5	11.6	14.4	0.0
Incr Delay (d2), s/veh	7.0	0.7	0.6	1.0	0.0	5.4	0.1	1.1	0.6	0.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	1.8	1.2	4.8	0.0	2.7	0.3	9.4	2.8	0.5	8.2	0.0
LnGrp Delay(d),s/veh	39.7	40.2	39.8	36.5	0.0	49.8	11.3	16.6	13.1	11.9	15.3	0.0
LnGrp LOS	D	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		408			283			1213			963	
Approach Delay, s/veh		39.8			40.8			15.9			15.1	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	60.0	15.8	16.8	6.6	60.9	20.0	12.6
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.1	20.7	11.6	5.4	2.7	18.2	16.4	7.5
Green Ext Time (p_c), s	0.1	0.0	0.2	1.1	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	83	32	1150	1010	27
Future Vol, veh/h	17	83	32	1150	1010	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	87	34	1211	1063	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1736	532	1063	0	-	0
Stage 1	1063	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	79	492	651	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	492	651	-	-	-
Mov Cap-2 Maneuver	194	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	444	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	651	-	194	492	-	-
HCM Lane V/C Ratio	0.052	-	0.092	0.178	-	-
HCM Control Delay (s)	10.8	-	25.4	13.9	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.6	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	75	0	23	22	14	3	0	17	8	0	2
Future Vol, veh/h	0	75	0	23	22	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	88	0	27	26	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	42	0	0	88	0	0	177	184	88	186	176	34
Stage 1	-	-	-	-	-	-	88	88	-	88	88	-
Stage 2	-	-	-	-	-	-	89	96	-	98	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1567	-	-	1508	-	-	785	710	970	775	717	1039
Stage 1	-	-	-	-	-	-	920	822	-	920	822	-
Stage 2	-	-	-	-	-	-	918	815	-	908	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1508	-	-	772	697	970	749	704	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	772	697	-	749	704	-
Stage 1	-	-	-	-	-	-	920	822	-	920	807	-
Stage 2	-	-	-	-	-	-	899	800	-	889	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.9	9	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	934	1567	-	-	1508	-	-	793
HCM Lane V/C Ratio	0.025	-	-	-	0.018	-	-	0.015
HCM Control Delay (s)	9	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	20	0	1	10	0	65	3
Future Vol, veh/h	0	7	20	0	1	10	0	65	3
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	34	0	2	17	0	112	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7	6.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	26%	96%
Vol Thru, %	9%	0%	4%
Vol Right, %	91%	74%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	11	27	68
LT Vol	0	7	65
Through Vol	1	0	3
RT Vol	10	20	0
Lane Flow Rate	19	47	117
Geometry Grp	1	1	1
Degree of Util (X)	0.019	0.049	0.137
Departure Headway (Hd)	3.557	3.776	4.221
Convergence, Y/N	Yes	Yes	Yes
Cap	1000	938	851
Service Time	1.601	1.843	2.238
HCM Lane V/C Ratio	0.019	0.05	0.137
HCM Control Delay	6.7	7	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	78	220	106	65	55	870	165	40	915	251
Future Volume (veh/h)	188	40	78	220	106	65	55	870	165	40	915	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	156	282	136	83	63	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	317	269	491	175	107	246	1600	716	248	1585	709
Arrive On Green	0.16	0.17	0.17	0.15	0.16	0.16	0.04	0.45	0.45	0.04	0.45	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1084	662	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	156	282	0	219	63	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1746	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	3.7	9.1	13.0	0.0	12.0	1.9	21.6	7.5	1.4	25.0	0.0
Cycle Q Clear(g_c), s	16.0	3.7	9.1	13.0	0.0	12.0	1.9	21.6	7.5	1.4	25.0	0.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	317	269	491	0	281	246	1600	716	248	1585	709
V/C Ratio(X)	0.93	0.25	0.58	0.57	0.00	0.78	0.26	0.62	0.27	0.19	0.70	0.00
Avail Cap(c_a), veh/h	403	559	475	507	0	524	492	1600	716	502	1585	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.6	36.0	38.2	28.2	0.0	40.2	17.1	20.9	17.1	16.1	22.1	0.0
Incr Delay (d2), s/veh	28.6	0.4	2.0	1.5	0.0	4.7	0.5	1.9	0.9	0.4	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	1.9	4.1	6.5	0.0	6.1	0.9	10.8	3.4	0.7	12.7	0.0
LnGrp Delay(d),s/veh	60.2	36.4	40.2	29.7	0.0	44.9	17.6	22.8	18.0	16.5	24.7	0.0
LnGrp LOS	E	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		612			501			1253			1150	
Approach Delay, s/veh		52.0			36.3			21.8			24.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	52.2	19.1	21.0	8.1	51.8	20.0	20.1
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.4	23.6	15.0	11.1	3.9	27.0	18.0	14.0
Green Ext Time (p_c), s	0.1	0.0	0.1	2.2	0.1	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	39	160	1050	1183	30
Future Vol, veh/h	40	39	160	1050	1183	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	45	184	1207	1360	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2331	680	1360	0	-	0
Stage 1	1360	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 31	393	501	-	-	-
Stage 1	204	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 20	393	501	-	-	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	204	-	-	-	-	-
Stage 2	208	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.7	2.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	501	-	103	393	-	-
HCM Lane V/C Ratio	0.367	-	0.446	0.114	-	-
HCM Control Delay (s)	16.3	-	65.5	15.3	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	1.7	-	1.9	0.4	-	-

Notes

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

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	19	1	12	165	13	4	0	38	22	0	3
Future Vol, veh/h	0	19	1	12	165	13	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	2	20	280	22	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	34	0	0	367	375	33	396	365	291
Stage 1	-	-	-	-	-	-	33	33	-	331	331	-
Stage 2	-	-	-	-	-	-	334	342	-	65	34	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1578	-	-	589	556	1041	564	563	748
Stage 1	-	-	-	-	-	-	983	868	-	682	645	-
Stage 2	-	-	-	-	-	-	680	638	-	946	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1259	-	-	1578	-	-	578	548	1041	523	555	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	578	548	-	523	555	-
Stage 1	-	-	-	-	-	-	983	868	-	682	635	-
Stage 2	-	-	-	-	-	-	665	628	-	887	867	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	9	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	967	1259	-	-	1578	-	-	543
HCM Lane V/C Ratio	0.074	-	-	-	0.013	-	-	0.078
HCM Control Delay (s)	9	0	-	-	7.3	0	-	12.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	12	160	0	5	20	0	0	0
Future Vol, veh/h	0	12	160	0	5	20	0	0	0
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	372	0	12	47	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	8.7	7.5
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	7%
Vol Thru, %	20%	0%
Vol Right, %	80%	93%
Sign Control	Stop	Stop
Traffic Vol by Lane	25	172
LT Vol	0	12
Through Vol	5	0
RT Vol	20	160
Lane Flow Rate	58	400
Geometry Grp	1	1
Degree of Util (X)	0.067	0.388
Departure Headway (Hd)	4.151	3.492
Convergence, Y/N	Yes	Yes
Cap	855	1028
Service Time	2.214	1.521
HCM Lane V/C Ratio	0.068	0.389
HCM Control Delay	7.5	8.7
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	13	220	106	65	55	870	165	40	915	251
Future Volume (veh/h)	188	40	13	220	106	65	55	870	165	40	915	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	26	282	136	83	63	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	308	262	505	170	104	249	1614	722	251	1598	715
Arrive On Green	0.16	0.17	0.17	0.15	0.16	0.16	0.04	0.46	0.46	0.04	0.45	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1084	662	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	26	282	0	219	63	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1746	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	3.7	1.4	13.1	0.0	12.1	1.9	21.4	7.4	1.4	24.8	0.0
Cycle Q Clear(g_c), s	16.0	3.7	1.4	13.1	0.0	12.1	1.9	21.4	7.4	1.4	24.8	0.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	398	308	262	505	0	274	249	1614	722	251	1598	715
V/C Ratio(X)	0.95	0.26	0.10	0.56	0.00	0.80	0.25	0.62	0.26	0.19	0.69	0.00
Avail Cap(c_a), veh/h	398	559	475	520	0	524	495	1614	722	505	1598	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.9	36.4	35.4	28.5	0.0	40.6	16.8	20.6	16.8	15.9	21.8	0.0
Incr Delay (d2), s/veh	31.5	0.4	0.2	1.3	0.0	5.3	0.5	1.8	0.9	0.4	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	2.0	0.6	6.5	0.0	6.2	0.9	10.8	3.4	0.7	12.6	0.0
LnGrp Delay(d),s/veh	63.4	36.8	35.6	29.7	0.0	45.9	17.4	22.4	17.7	16.3	24.3	0.0
LnGrp LOS	E	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		482			501			1253			1150	
Approach Delay, s/veh		57.5			36.8			21.4			24.0	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	52.6	19.2	20.6	8.1	52.2	20.0	19.7
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.4	23.4	15.1	5.7	3.9	26.8	18.0	14.1
Green Ext Time (p_c), s	0.1	0.0	0.1	1.9	0.1	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	104	160	1050	1118	28
Future Vol, veh/h	40	104	160	1050	1118	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	120	184	1207	1285	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2256	643	1285	0	-	0
Stage 1	1285	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Critical Hdwy	7.54	6.94	4.14	-	-	-
Critical Hdwy Stg 1	6.54	-	-	-	-	-
Critical Hdwy Stg 2	6.54	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 22	416	536	-	-	-
Stage 1	174	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 16	416	536	-	-	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	114	-	-	-	-	-
Stage 2	178	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47	2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	536	-	70	416	-	-
HCM Lane V/C Ratio	0.343	-	0.657	0.287	-	-
HCM Control Delay (s)	15.2	-	124.7	17.1	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	1.5	-	2.9	1.2	-	-

Notes

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

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	84	1	12	163	13	4	0	38	22	0	3
Future Vol, veh/h	0	84	1	12	163	13	4	0	38	22	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	142	2	20	276	22	7	0	64	37	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	144	0	0	474	482	143	503	472	287
Stage 1	-	-	-	-	-	-	143	143	-	328	328	-
Stage 2	-	-	-	-	-	-	331	339	-	175	144	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1263	-	-	1438	-	-	501	484	905	479	490	752
Stage 1	-	-	-	-	-	-	860	779	-	685	647	-
Stage 2	-	-	-	-	-	-	682	640	-	827	778	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1263	-	-	1438	-	-	491	476	905	439	482	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	491	476	-	439	482	-
Stage 1	-	-	-	-	-	-	860	779	-	685	636	-
Stage 2	-	-	-	-	-	-	666	629	-	768	778	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	9.7	13.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	838	1263	-	-	1438	-	-	462
HCM Lane V/C Ratio	0.085	-	-	-	0.014	-	-	0.092
HCM Control Delay (s)	9.7	0	-	-	7.5	0	-	13.6
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	10	160	0	5	20	0	65	2
Future Vol, veh/h	0	10	160	0	5	20	0	65	2
Peak Hour Factor	0.92	0.43	0.43	0.92	0.43	0.43	0.92	0.43	0.43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	372	0	12	47	0	151	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.9	7.9	9.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	6%	97%
Vol Thru, %	20%	0%	3%
Vol Right, %	80%	94%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	25	170	67
LT Vol	0	10	65
Through Vol	5	0	2
RT Vol	20	160	0
Lane Flow Rate	58	395	156
Geometry Grp	1	1	1
Degree of Util (X)	0.072	0.43	0.217
Departure Headway (Hd)	4.475	3.916	5.012
Convergence, Y/N	Yes	Yes	Yes
Cap	798	921	715
Service Time	2.518	1.932	3.051
HCM Lane V/C Ratio	0.073	0.429	0.218
HCM Control Delay	7.9	9.9	9.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	2.2	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	78	220	106	65	55	870	165	40	915	251
Future Volume (veh/h)	188	40	78	220	106	65	55	870	165	40	915	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	156	282	136	83	63	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	420	333	283	503	174	106	239	1567	701	242	1551	694
Arrive On Green	0.17	0.18	0.18	0.15	0.16	0.16	0.04	0.44	0.44	0.04	0.44	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1084	662	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	156	282	0	219	63	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1746	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	3.7	9.0	13.0	0.0	12.0	1.9	21.9	7.6	1.5	25.4	0.0
Cycle Q Clear(g_c), s	17.0	3.7	9.0	13.0	0.0	12.0	1.9	21.9	7.6	1.5	25.4	0.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	333	283	503	0	280	239	1567	701	242	1551	694
V/C Ratio(X)	0.90	0.24	0.55	0.56	0.00	0.78	0.26	0.64	0.27	0.20	0.71	0.00
Avail Cap(c_a), veh/h	420	540	459	535	0	506	485	1567	701	496	1551	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	35.2	37.4	28.1	0.0	40.3	17.7	21.6	17.6	16.7	22.9	0.0
Incr Delay (d2), s/veh	21.1	0.4	1.7	1.2	0.0	4.7	0.6	2.0	1.0	0.4	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.9	4.0	6.4	0.0	6.1	1.0	11.1	3.5	0.7	13.0	0.0
LnGrp Delay(d),s/veh	51.2	35.6	39.1	29.3	0.0	45.0	18.3	23.7	18.6	17.1	25.7	0.0
LnGrp LOS	D	D	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		612			501			1253			1150	
Approach Delay, s/veh		46.1			36.2			22.6			25.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	51.3	19.2	21.9	8.1	50.8	21.0	20.1
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	3.5	23.9	15.0	11.0	3.9	27.4	19.0	14.0
Green Ext Time (p_c), s	0.1	0.0	0.2	2.2	0.1	0.0	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	118	155	17	65	30	965	175	40	865	68
Future Volume (veh/h)	172	44	118	155	17	65	30	965	175	40	865	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	274	191	21	80	31	1005	182	43	920	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	482	379	322	422	52	199	293	1632	730	250	1654	740
Arrive On Green	0.16	0.20	0.20	0.11	0.15	0.15	0.03	0.46	0.46	0.03	0.47	0.00
Sat Flow, veh/h	1774	1863	1583	1774	340	1294	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	274	191	0	101	31	1005	182	43	920	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1634	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	4.6	16.7	8.9	0.0	5.6	0.9	21.4	7.0	1.3	18.7	0.0
Cycle Q Clear(g_c), s	16.0	4.6	16.7	8.9	0.0	5.6	0.9	21.4	7.0	1.3	18.7	0.0
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	482	379	322	422	0	252	293	1632	730	250	1654	740
V/C Ratio(X)	0.83	0.27	0.85	0.45	0.00	0.40	0.11	0.62	0.25	0.17	0.56	0.00
Avail Cap(c_a), veh/h	482	559	475	510	0	490	561	1632	730	508	1654	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	33.6	38.4	30.3	0.0	38.1	15.0	20.3	16.4	15.5	19.2	0.0
Incr Delay (d2), s/veh	11.5	0.4	9.4	0.8	0.0	1.0	0.2	1.7	0.8	0.3	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.4	8.1	4.4	0.0	2.6	0.5	10.7	3.2	0.6	9.4	0.0
LnGrp Delay(d),s/veh	42.0	33.9	47.8	31.1	0.0	39.2	15.1	22.0	17.2	15.8	20.5	0.0
LnGrp LOS	D	C	D	C		D	B	C	B	B	C	
Approach Vol, veh/h		776			292			1218			963	
Approach Delay, s/veh		43.0			33.9			21.1			20.3	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	53.1	15.0	24.3	6.9	53.7	20.0	19.4
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.3	23.4	10.9	18.7	2.9	20.7	18.0	7.6
Green Ext Time (p_c), s	0.1	0.0	0.2	1.7	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	18	43	1155	1108	30
Future Vol, veh/h	17	18	43	1155	1108	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	19	45	1216	1166	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1864	583	1166	0	-	0
Stage 1	1166	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	64	456	595	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	59	456	595	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	595	-	171	456	-	-
HCM Lane V/C Ratio	0.076	-	0.105	0.042	-	-
HCM Control Delay (s)	11.5	-	28.5	13.2	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	10	0	23	36	14	3	0	17	8	0	2
Future Vol, veh/h	0	10	0	23	36	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	0	27	42	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	12	0	0	118	125	12	127	117	51
Stage 1	-	-	-	-	-	-	12	12	-	105	105	-
Stage 2	-	-	-	-	-	-	106	113	-	22	12	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1607	-	-	858	765	1069	846	773	1017
Stage 1	-	-	-	-	-	-	1009	886	-	901	808	-
Stage 2	-	-	-	-	-	-	900	802	-	996	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1607	-	-	845	752	1069	819	760	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-	845	752	-	819	760	-
Stage 1	-	-	-	-	-	-	1009	886	-	901	794	-
Stage 2	-	-	-	-	-	-	883	788	-	977	886	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	8.6	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1028	1545	-	-	1607	-	-	852
HCM Lane V/C Ratio	0.023	-	-	-	0.017	-	-	0.014
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9.3
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	10	31	0	1	10	0	0	0
Future Vol, veh/h	0	10	31	0	1	10	0	0	0
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	53	0	2	17	0	0	0
Number of Lanes	0	1	0	0	1	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.8	6.6
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	24%
Vol Thru, %	9%	0%
Vol Right, %	91%	76%
Sign Control	Stop	Stop
Traffic Vol by Lane	11	41
LT Vol	0	10
Through Vol	1	0
RT Vol	10	31
Lane Flow Rate	19	71
Geometry Grp	1	1
Degree of Util (X)	0.019	0.07
Departure Headway (Hd)	3.512	3.562
Convergence, Y/N	Yes	Yes
Cap	1021	1011
Service Time	1.525	1.566
HCM Lane V/C Ratio	0.019	0.07
HCM Control Delay	6.6	6.8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.1	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	28	155	17	65	30	965	175	40	865	68
Future Volume (veh/h)	172	44	28	155	17	65	30	965	175	40	865	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	65	191	21	80	31	1005	182	43	920	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	254	216	384	32	120	342	1848	827	290	1869	836
Arrive On Green	0.16	0.14	0.14	0.12	0.09	0.09	0.03	0.52	0.52	0.03	0.53	0.00
Sat Flow, veh/h	1774	1863	1583	1774	340	1294	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	65	191	0	101	31	1005	182	43	920	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1634	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	5.0	3.7	9.5	0.0	6.0	0.8	19.0	6.2	1.1	16.6	0.0
Cycle Q Clear(g_c), s	16.0	5.0	3.7	9.5	0.0	6.0	0.8	19.0	6.2	1.1	16.6	0.0
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	254	216	384	0	152	342	1848	827	290	1869	836
V/C Ratio(X)	1.00	0.40	0.30	0.50	0.00	0.66	0.09	0.54	0.22	0.15	0.49	0.00
Avail Cap(c_a), veh/h	399	559	475	461	0	490	610	1848	827	548	1869	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.1	39.5	38.9	35.0	0.0	43.8	11.6	16.0	12.9	12.0	15.0	0.0
Incr Delay (d2), s/veh	45.8	1.0	0.8	1.0	0.0	4.9	0.1	1.2	0.6	0.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.7	1.7	4.7	0.0	2.9	0.4	9.5	2.9	0.5	8.3	0.0
LnGrp Delay(d),s/veh	81.9	40.5	39.7	36.0	0.0	48.7	11.7	17.1	13.5	12.3	16.0	0.0
LnGrp LOS	F	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		567			292			1218			963	
Approach Delay, s/veh		69.6			40.4			16.4			15.8	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	59.2	15.7	17.6	6.9	59.8	20.0	13.3
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	16.0	30.0	18.0	17.0	16.0	30.0
Max Q Clear Time (g_c+I1), s	3.1	21.0	11.5	7.0	2.8	18.6	18.0	8.0
Green Ext Time (p_c), s	0.1	0.0	0.2	1.4	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	108	43	1155	1018	27
Future Vol, veh/h	17	108	43	1155	1018	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	450	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	114	45	1216	1072	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1770	536	1072	0	-	0
Stage 1	1072	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	74	489	646	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	69	489	646	-	-	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	423	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	646	-	187	489	-	-
HCM Lane V/C Ratio	0.07	-	0.096	0.232	-	-
HCM Control Delay (s)	11	-	26.3	14.6	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.9	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	100	0	23	33	14	3	0	17	8	0	2
Future Vol, veh/h	0	100	0	23	33	14	3	0	17	8	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	0	27	39	16	4	0	20	9	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	118	0	0	220	227	118	229	219	47
Stage 1	-	-	-	-	-	-	118	118	-	101	101	-
Stage 2	-	-	-	-	-	-	102	109	-	128	118	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1470	-	-	736	672	934	726	679	1022
Stage 1	-	-	-	-	-	-	887	798	-	905	811	-
Stage 2	-	-	-	-	-	-	904	805	-	876	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1550	-	-	1470	-	-	724	659	934	700	666	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	659	-	700	666	-
Stage 1	-	-	-	-	-	-	887	798	-	905	796	-
Stage 2	-	-	-	-	-	-	885	790	-	857	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.1	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	895	1550	-	-	1470	-	-	747
HCM Lane V/C Ratio	0.026	-	-	-	0.018	-	-	0.016
HCM Control Delay (s)	9.1	0	-	-	7.5	0	-	9.9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	7	31	0	1	10	0	90	3
Future Vol, veh/h	0	7	31	0	1	10	0	90	3
Peak Hour Factor	0.92	0.58	0.58	0.92	0.58	0.58	0.92	0.58	0.58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	53	0	2	17	0	155	5
Number of Lanes	0	1	0	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.2	6.8	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	18%	97%
Vol Thru, %	9%	0%	3%
Vol Right, %	91%	82%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	11	38	93
LT Vol	0	7	90
Through Vol	1	0	3
RT Vol	10	31	0
Lane Flow Rate	19	66	160
Geometry Grp	1	1	1
Degree of Util (X)	0.019	0.069	0.19
Departure Headway (Hd)	3.624	3.791	4.257
Convergence, Y/N	Yes	Yes	Yes
Cap	977	927	843
Service Time	1.687	1.886	2.28
HCM Lane V/C Ratio	0.019	0.071	0.19
HCM Control Delay	6.8	7.2	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	40	13	220	106	65	55	870	165	40	915	251
Future Volume (veh/h)	188	40	13	220	106	65	55	870	165	40	915	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	376	80	26	282	136	83	63	1000	190	48	1102	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.87	0.87	0.87	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	325	276	518	170	104	242	1580	707	244	1564	700
Arrive On Green	0.17	0.17	0.17	0.15	0.16	0.16	0.04	0.45	0.45	0.04	0.44	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1084	662	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	376	80	26	282	0	219	63	1000	190	48	1102	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1746	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	3.7	1.4	13.1	0.0	12.1	1.9	21.8	7.5	1.4	25.2	0.0
Cycle Q Clear(g_c), s	17.0	3.7	1.4	13.1	0.0	12.1	1.9	21.8	7.5	1.4	25.2	0.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	325	276	518	0	273	242	1580	707	244	1564	700
V/C Ratio(X)	0.91	0.25	0.09	0.54	0.00	0.80	0.26	0.63	0.27	0.20	0.70	0.00
Avail Cap(c_a), veh/h	415	540	459	550	0	506	488	1580	707	498	1564	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	35.6	34.7	28.4	0.0	40.7	17.5	21.3	17.4	16.5	22.6	0.0
Incr Delay (d2), s/veh	23.1	0.4	0.1	1.0	0.0	5.4	0.6	1.9	0.9	0.4	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.9	0.6	6.5	0.0	6.2	0.9	11.0	3.5	0.7	12.8	0.0
LnGrp Delay(d),s/veh	53.5	36.0	34.8	29.4	0.0	46.1	18.0	23.3	18.3	16.9	25.3	0.0
LnGrp LOS	D	D	C	C		D	B	C	B	B	C	
Approach Vol, veh/h		482			501			1253			1150	
Approach Delay, s/veh		49.6			36.7			22.3			24.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	51.7	19.2	21.4	8.1	51.2	21.0	19.7
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	3.4	23.8	15.1	5.7	3.9	27.2	19.0	14.1
Green Ext Time (p_c), s	0.1	0.0	0.2	1.8	0.1	0.0	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	44	28	155	17	65	30	965	175	40	865	68
Future Volume (veh/h)	172	44	28	155	17	65	30	965	175	40	865	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	400	102	65	191	21	80	31	1005	182	43	920	0
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.43	0.43	0.43	0.81	0.81	0.81	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	272	231	392	32	120	334	1813	811	284	1834	821
Arrive On Green	0.17	0.15	0.15	0.12	0.09	0.09	0.03	0.51	0.51	0.03	0.52	0.00
Sat Flow, veh/h	1774	1863	1583	1774	340	1294	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	400	102	65	191	0	101	31	1005	182	43	920	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1634	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	17.0	4.9	3.7	9.5	0.0	6.0	0.8	19.3	6.3	1.1	16.9	0.0
Cycle Q Clear(g_c), s	17.0	4.9	3.7	9.5	0.0	6.0	0.8	19.3	6.3	1.1	16.9	0.0
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	272	231	392	0	152	334	1813	811	284	1834	821
V/C Ratio(X)	0.96	0.38	0.28	0.49	0.00	0.67	0.09	0.55	0.22	0.15	0.50	0.00
Avail Cap(c_a), veh/h	416	540	459	486	0	474	602	1813	811	541	1834	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.9	38.6	38.0	35.0	0.0	43.9	12.1	16.6	13.4	12.6	15.7	0.0
Incr Delay (d2), s/veh	34.0	0.9	0.7	0.9	0.0	4.9	0.1	1.2	0.6	0.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	2.6	1.6	4.7	0.0	2.9	0.4	9.7	2.9	0.6	8.4	0.0
LnGrp Delay(d),s/veh	68.9	39.5	38.7	35.9	0.0	48.8	12.2	17.8	14.1	12.8	16.7	0.0
LnGrp LOS	E	D	D	D		D	B	B	B	B	B	
Approach Vol, veh/h		567			292			1218			963	
Approach Delay, s/veh		60.1			40.4			17.1			16.5	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	58.2	15.7	18.6	6.9	58.8	21.0	13.3
Change Period (Y+Rc), s	4.0	7.0	4.0	4.0	4.0	7.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	17.0	17.0	29.0	18.0	17.0	17.0	29.0
Max Q Clear Time (g_c+I1), s	3.1	21.3	11.5	6.9	2.8	18.9	19.0	8.0
Green Ext Time (p_c), s	0.1	0.0	0.2	1.3	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*AM Peak*	Analysis Year	*Existing*
Peak Hour Factor	*0.51*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	*0*	*1*	*0*		*0*	*0*	*0*		*0*	*1*	*0*		*0*	*0*	*0*	
Lane Assignment			*LTR*				*LR*				*TR*					
Right-Turn Bypass	*None*				None				None				None			
Conflicting Lanes	*1*				1				1				1			
Volume (V), veh/h	*0*	*9*	*1*	*0*	*252*		*32*	*11*		*2*	*171*	*0*				*0*
Heavy Veh. Adj. (f_{HV}), %	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Pedestrians Crossing	*0*				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*
Follow-Up Headway (sec)	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	*526*			*4*			*40*			*526*		
Exiting Flow (V_{ex}), pc/h	*382*			*0*			*68*			*506*		
Entry Flow (V_e), pc/h		*20*			*590*			*346*				
Entry Volume veh/h		*20*			*578*			*339*				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		*854*			*1282*			*1246*			*0*	
Capacity (*c*), veh/h		*837*			*1257*			*1222*			*0*	
v/c Ratio (X)		*0.02*			*0.46*			*0.28*				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		*4.5*			*7.6*			*5.5*				
Lane LOS		*A*			*A*			*A*			*F*	
Lane 95% Queue		*0.1*			*2.5*			*1.1*				
Approach Delay, s/veh	*4.52*			*7.58*			*5.46*					
Approach LOS, s/veh	*A*			*A*			*A*					
Intersection Delay, s/veh	*6.75*											
Intersection LOS	*A*											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	PM Peak	Analysis Year	Existing
Peak Hour Factor	0.48	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	45	0	0	33		13	11		0	164	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	81			0			107			81		
Exiting Flow (V_{ex}), pc/h	455			0			28			70		
Entry Flow (V_e), pc/h		96			109			349				
Entry Volume veh/h		94			107			342				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1207			1286			1183			0	
Capacity (c), veh/h		1183			1261			1160			0	
v/c Ratio (X)		0.08			0.08			0.29				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		3.7			3.5			5.9				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.3			0.3			1.2				
Approach Delay, s/veh	3.70			3.54			5.87					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	5.04											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*AM Peak*	Analysis Year	*2020 Background - Scenario 1*
Peak Hour Factor	*0.51*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	*0*	*1*	*0*		*0*	*0*	*0*		*0*	*1*	*0*		*0*	*0*	*0*	
Lane Assignment			*LTR*				*LR*				*TR*					
Right-Turn Bypass	*None*				None				None				None			
Conflicting Lanes	*1*				1				1				1			
Volume (V), veh/h	*0*	*10*	*1*	*0*	*255*		*35*	*11*		*2*	*175*	*0*				*0*
Heavy Veh. Adj. (f_{HV}), %	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Pedestrians Crossing	*0*				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*
Follow-Up Headway (sec)	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	*532*			*4*			*42*			*532*		
Exiting Flow (V_{ex}), pc/h	*392*			*0*			*74*			*512*		
Entry Flow (V_e), pc/h		*22*			*602*			*354*				
Entry Volume veh/h		*22*			*590*			*347*				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		*850*			*1282*			*1244*			*0*	
Capacity (*c*), veh/h		*833*			*1257*			*1220*			*0*	
v/c Ratio (X)		*0.03*			*0.47*			*0.28*				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		*4.6*			*7.7*			*5.5*				
Lane LOS		*A*			*A*			*A*			*F*	
Lane 95% Queue		*0.1*			*2.6*			*1.2*				
Approach Delay, s/veh	*4.57*			*7.72*			*5.54*					
Approach LOS, s/veh	*A*			*A*			*A*					
Intersection Delay, s/veh	*6.86*											
Intersection LOS	*A*											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*PM Peak*	Analysis Year	*2020 Background - Scenario 1*
Peak Hour Factor	*0.48*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	*0*	*1*	*0*		*0*	*0*	*0*		*0*	*1*	*0*		*0*	*0*	*0*	
Lane Assignment			*LTR*				*LR*				*TR*					
Right-Turn Bypass	*None*				None				None				None			
Conflicting Lanes	*1*				1				1				1			
Volume (V), veh/h	*0*	*45*	*1*	*0*	*35*		*15*	*11*		*2*	*165*	*0*				*0*
Heavy Veh. Adj. (f_{HV}), %	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Pedestrians Crossing	*0*				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*
Follow-Up Headway (sec)	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	*97*			*4*			*119*			*97*		
Exiting Flow (V_{ex}), pc/h	*470*			*0*			*36*			*77*		
Entry Flow (V_e), pc/h		*98*			*130*			*355*				
Entry Volume veh/h		*96*			*127*			*348*				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		*1192*			*1281*			*1172*			*0*	
Capacity (*c*), veh/h		*1168*			*1256*			*1149*			*0*	
v/c Ratio (X)		*0.08*			*0.10*			*0.30*				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		*3.8*			*3.7*			*6.0*				
Lane LOS		*A*			*A*			*A*			*F*	
Lane 95% Queue		*0.3*			*0.3*			*1.3*				
Approach Delay, s/veh	*3.77*			*3.70*			*6.00*					
Approach LOS, s/veh	*A*			*A*			*A*					
Intersection Delay, s/veh	*5.11*											
Intersection LOS	*A*											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*AM Peak*	Analysis Year	*2020 Background - Scenario 2*
Peak Hour Factor	*0.51*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	*0*	*1*	*0*		*0*	*0*	*0*		*0*	*1*	*0*		*0*	*0*	*0*	
Lane Assignment			*LTR*				*LR*				*TR*					
Right-Turn Bypass	*None*				None				None				None			
Conflicting Lanes	*1*				1				1				1			
Volume (V), veh/h	*0*	*10*	*1*	*0*	*255*		*35*	*11*		*2*	*130*	*0*				*0*
Heavy Veh. Adj. (f_{HV}), %	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Pedestrians Crossing	*0*				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*	*5.1929*	*4.2000*	*5.1929*
Follow-Up Headway (sec)	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*	*3.1858*	*2.8000*	*3.1858*

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	*532*			*4*			*42*			*532*		
Exiting Flow (V_{ex}), pc/h	*302*			*0*			*74*			*512*		
Entry Flow (V_e), pc/h		*22*			*602*			*264*				
Entry Volume veh/h		*22*			*590*			*259*				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		*850*			*1282*			*1244*			*0*	
Capacity (*c*), veh/h		*833*			*1257*			*1220*			*0*	
v/c Ratio (X)		*0.03*			*0.47*			*0.21*				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		*4.6*			*7.7*			*4.8*				
Lane LOS		*A*			*A*			*A*			*F*	
Lane 95% Queue		*0.1*			*2.6*			*0.8*				
Approach Delay, s/veh	*4.57*			*7.72*			*4.80*					
Approach LOS, s/veh	*A*			*A*			*A*					
Intersection Delay, s/veh	*6.77*											
Intersection LOS	*A*											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*PM Peak*	Analysis Year	*2020 Background - Scenario 2*
Peak Hour Factor	*0.48*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	45	1	0	35		15	11		2	100	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	97			4			119			97		
Exiting Flow (V_{ex}), pc/h	332			0			36			77		
Entry Flow (V_e), pc/h		98			130			217				
Entry Volume veh/h		96			127			213				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1192			1281			1172			0	
Capacity (c), veh/h		1168			1256			1149			0	
v/c Ratio (X)		0.08			0.10			0.19				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		3.8			3.7			4.8				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.3			0.3			0.7				
Approach Delay, s/veh	3.77			3.70			4.77					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	4.24											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	AM Peak	Analysis Year	2020 Total - Scenario 1
Peak Hour Factor	0.51	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	13	1	0	350		47	11		2	238	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	722			4			48			722		
Exiting Flow (V_{ex}), pc/h	524			0			98			702		
Entry Flow (V_e), pc/h		28			816			480				
Entry Volume veh/h		27			800			471				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		733			1282			1239			0	
Capacity (c), veh/h		719			1257			1214			0	
v/c Ratio (X)		0.04			0.64			0.39				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.4			10.9			6.8				
Lane LOS		A			B			A			F	
Lane 95% Queue		0.1			4.8			1.9				
Approach Delay, s/veh	5.40			10.91			6.77					
Approach LOS, s/veh	A			B			A					
Intersection Delay, s/veh	9.30											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	PM Peak	Analysis Year	2020 Total - Scenario 1
Peak Hour Factor	0.48	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	65	1	0	60		25	11		2	239	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	151			4			161			151		
Exiting Flow (V_{ex}), pc/h	669			0			57			130		
Entry Flow (V_e), pc/h		140			204			512				
Entry Volume veh/h		137			200			502				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1143			1281			1134			0	
Capacity (c), veh/h		1121			1256			1112			0	
v/c Ratio (X)		0.12			0.16			0.45				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.3			4.2			8.1				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.4			0.6			2.4				
Approach Delay, s/veh	4.27			4.20			8.13					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	6.56											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	AM Peak	Analysis Year	2020 Total - Scenario 2
Peak Hour Factor	0.51	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	12	2	0	350		47	11		2	174	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	722			4			46			722		
Exiting Flow (V_{ex}), pc/h	394			0			98			704		
Entry Flow (V_e), pc/h		28			816			352				
Entry Volume veh/h		27			800			345				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		733			1282			1241			0	
Capacity (c), veh/h		719			1257			1216			0	
v/c Ratio (X)		0.04			0.64			0.28				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.4			10.9			5.5				
Lane LOS		A			B			A			F	
Lane 95% Queue		0.1			4.8			1.2				
Approach Delay, s/veh	5.40			10.91			5.55					
Approach LOS, s/veh	A			B			A					
Intersection Delay, s/veh	9.21											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*PM Peak*	Analysis Year	*2020 Total - Scenario 2*
Peak Hour Factor	*0.48*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	58	8	0	60		25	11		2	146	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	151			4			146			151		
Exiting Flow (V_{ex}), pc/h	457			0			57			145		
Entry Flow (V_e), pc/h		140			204			315				
Entry Volume veh/h		137			200			309				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1143			1281			1147			0	
Capacity (c), veh/h		1121			1256			1125			0	
v/c Ratio (X)		0.12			0.16			0.27				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.3			4.2			5.8				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.4			0.6			1.1				
Approach Delay, s/veh	4.27			4.20			5.78					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	4.97											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*AM Peak*	Analysis Year	*2037 Background - Scenario 1*
Peak Hour Factor	*0.51*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	10	1	0	255		35	11		2	175	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	532			4			42			532		
Exiting Flow (V_{ex}), pc/h	392			0			74			512		
Entry Flow (V_e), pc/h		22			602			354				
Entry Volume veh/h		22			590			347				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		850			1282			1244			0	
Capacity (c), veh/h		833			1257			1220			0	
v/c Ratio (X)		0.03			0.47			0.28				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.6			7.7			5.5				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.1			2.6			1.2				
Approach Delay, s/veh	4.57			7.72			5.54					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	6.86											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	PM Peak	Analysis Year	2037 Background - Scenario 1
Peak Hour Factor	0.48	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	45	1	0	35		15	11		2	165	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	97			4			119			97		
Exiting Flow (V_{ex}), pc/h	470			0			36			77		
Entry Flow (V_e), pc/h		98			130			355				
Entry Volume veh/h		96			127			348				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1192			1281			1172			0	
Capacity (c), veh/h		1168			1256			1149			0	
v/c Ratio (X)		0.08			0.10			0.30				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		3.8			3.7			6.0				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.3			0.3			1.3				
Approach Delay, s/veh	3.77			3.70			6.00					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	5.11											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*AM Peak*	Analysis Year	*2037 Background - Scenario 2*
Peak Hour Factor	*0.51*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	10	1	0	255		35	11		2	130	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	532			4			42			532		
Exiting Flow (V_{ex}), pc/h	302			0			74			512		
Entry Flow (V_e), pc/h		22			602			264				
Entry Volume veh/h		22			590			259				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		850			1282			1244			0	
Capacity (c), veh/h		833			1257			1220			0	
v/c Ratio (X)		0.03			0.47			0.21				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.6			7.7			4.8				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.1			2.6			0.8				
Approach Delay, s/veh	4.57			7.72			4.80					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	6.77											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	*CSM*	Intersection	*Summit HS Dr/ Alpensee Dr*
Agency or Co.	*LSC*	E/W Street Name	*Summit High School Drive*
Date Performed	*4/7/2017*	N/S Street Name	*Alpensee Drive*
Time Period	*PM Peak*	Analysis Year	*2037 Background - Scenario 2*
Peak Hour Factor	*0.48*	Project ID	*170160*

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	45	1	0	35		15	11		2	100	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	97			4			119			97		
Exiting Flow (V_{ex}), pc/h	332			0			36			77		
Entry Flow (V_e), pc/h		98			130			217				
Entry Volume veh/h		96			127			213				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1192			1281			1172			0	
Capacity (c), veh/h		1168			1256			1149			0	
v/c Ratio (X)		0.08			0.10			0.19				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		3.8			3.7			4.8				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.3			0.3			0.7				
Approach Delay, s/veh	3.77			3.70			4.77					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	4.24											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	AM Peak	Analysis Year	2037 Total - Scenario 1
Peak Hour Factor	0.51	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	13	1	0	350		47	11		2	238	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	722			4			48			722		
Exiting Flow (V_{ex}), pc/h	524			0			98			702		
Entry Flow (V_e), pc/h		28			816			480				
Entry Volume veh/h		27			800			471				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		733			1282			1239			0	
Capacity (c), veh/h		719			1257			1214			0	
v/c Ratio (X)		0.04			0.64			0.39				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.4			10.9			6.8				
Lane LOS		A			B			A			F	
Lane 95% Queue		0.1			4.8			1.9				
Approach Delay, s/veh	5.40			10.91			6.77					
Approach LOS, s/veh	A			B			A					
Intersection Delay, s/veh	9.30											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	PM Peak	Analysis Year	2037 Total - Scenario 1
Peak Hour Factor	0.48	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	65	1	0	60		25	11		2	239	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	151			4			161			151		
Exiting Flow (V_{ex}), pc/h	669			0			57			130		
Entry Flow (V_e), pc/h		140			204			512				
Entry Volume veh/h		137			200			502				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1143			1281			1134			0	
Capacity (c), veh/h		1121			1256			1112			0	
v/c Ratio (X)		0.12			0.16			0.45				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.3			4.2			8.1				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.4			0.6			2.4				
Approach Delay, s/veh	4.27			4.20			8.13					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	6.56											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	AM Peak	Analysis Year	2037 Total - Scenario 2
Peak Hour Factor	0.51	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	12	2	0	350		47	11		2	174	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	722			4			46			722		
Exiting Flow (V_{ex}), pc/h	394			0			98			704		
Entry Flow (V_e), pc/h		28			816			352				
Entry Volume veh/h		27			800			345				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		733			1282			1241			0	
Capacity (c), veh/h		719			1257			1216			0	
v/c Ratio (X)		0.04			0.64			0.28				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.4			10.9			5.5				
Lane LOS		A			B			A			F	
Lane 95% Queue		0.1			4.8			1.2				
Approach Delay, s/veh	5.40			10.91			5.55					
Approach LOS, s/veh	A			B			A					
Intersection Delay, s/veh	9.21											
Intersection LOS	A											

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ROUNDABOUT REPORT

General Information		Site Information	
Analyst	CSM	Intersection	Summit HS Dr/ Alpensee Dr
Agency or Co.	LSC	E/W Street Name	Summit High School Drive
Date Performed	4/7/2017	N/S Street Name	Alpensee Drive
Time Period	PM Peak	Analysis Year	2037 Total - Scenario 2
Peak Hour Factor	0.48	Project ID	170160

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	1	0		0	0	0		0	1	0		0	0	0	
Lane Assignment			LTR				LR				TR					
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h	0	58	8	0	60		25	11		2	146	0				0
Heavy Veh. Adj. (f_{HV}), %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pedestrians Crossing	0				0				0				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929	5.1929	4.2000	5.1929
Follow-Up Headway (sec)	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858	3.1858	2.8000	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	151			4			146			151		
Exiting Flow (V_{ex}), pc/h	457			0			57			145		
Entry Flow (V_e), pc/h		140			204			315				
Entry Volume veh/h		137			200			309				

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		1143			1281			1147			0	
Capacity (c), veh/h		1121			1256			1125			0	
v/c Ratio (X)		0.12			0.16			0.27				

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		4.3			4.2			5.8				
Lane LOS		A			A			A			F	
Lane 95% Queue		0.4			0.6			1.1				
Approach Delay, s/veh	4.27			4.20			5.78					
Approach LOS, s/veh	A			A			A					
Intersection Delay, s/veh	4.97											
Intersection LOS	A											

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