LOCAL TRAFFIC ASSESSMENT

For "Valle Reseda" Residential Development
In the City of San Jacinto

Date: September 29, 2021

Prepared For:

Golden Ocean Realty, LLC

608 Deodar Lane

Bradbury, CA 91008

Prepared By:

K2 Traffic Engineering, Inc.

1442 Irvine Blvd, Suite 210

Tustin, CA 92780

(714) 832-2116

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Local Traffic Assessment

For *"Valle Reseda"* Residential Development

N. Ramona Blvd, San Jacinto

Prepared under the supervision of

Jende Kay Hsu, P.E., T. E.

Lic. # T2285

EXECUTIVE SUMMARY

The purpose of this assessment is to evaluate the traffic impact of the proposed residential development located at the southwest side of Ramona Boulevard between Shimmering Way and Ranch View Lane in the City of San Jacinto. The project plans to construct a 184-unit single family residential development over a vacant and unimproved lot.

The project is expected to have a trip generation of 136 trips in the AM peak hour, including 34 inbound and 102 outbound trips, 182 trips in the PM peak hour, including 115 inbound and 67 outbound trips, and 1,737 daily trips. The project will not result in any operational deficiencies at study intersections. Therefore, local improvements are not required.

The study found that the intersection of Ramona Expressway and Sanderson Avenue has been operating at LOS F in the AM peak hour for existing conditions as well as the project opening year. However, the project's contribution to the pre-existing operational deficiency is negligible and local improvements are not required, according to City's local traffic assessment guidelines.

Site access is provided on Ramona Boulevard by the proposed residential street temporarily named "A Street", which will be the main entrance to the project site. An exclusive eastbound right-turn pocket and an exclusive westbound left-turn pocket will be provided on Ramona Boulevard. This access will be controlled by a STOP sign posted on "A Street" along with corresponding pavement markings.

A secondary access point for the development will be provided on Sanderson Avenue at the proposed De Anza Drive, which provides one lane in each direction with a pavement width of 26 feet. The intersection of De Anza Drive and Sanderson Avenue will be controlled by traffic signals. Upon project completion, De Anza Drive will serve as a Collector for the subject community solely until future developments progress in the surrounding area.

INTRODUCTION

The purpose of this study is to provide a local traffic assessment for the proposed residential development of 184-unit single family homes on vacant and unimproved lots (APN# 436-030-001, 436-040-006, and 436-040-008) at the south side of Ramona Boulevard between Shimmering Way and Ranch View Lane in the City of San Jacinto. The vicinity map is shown in **Exhibit 1**. The proposed site plans are provided in **Exhibits 2** and **3**.

The project will construct a new residential street temporarily named "A Street" that intersects with Ramona Boulevard between Shimmering Way and Ranch View Lane. The project will also construct a segment of collector named De Anza Drive to provide the second access for the development and connect westerly with Sanderson Avenue. Upon project completion, De Anza Drive will only serve as the second local access for the project but not connected to any other development until future developments progress south of the project.
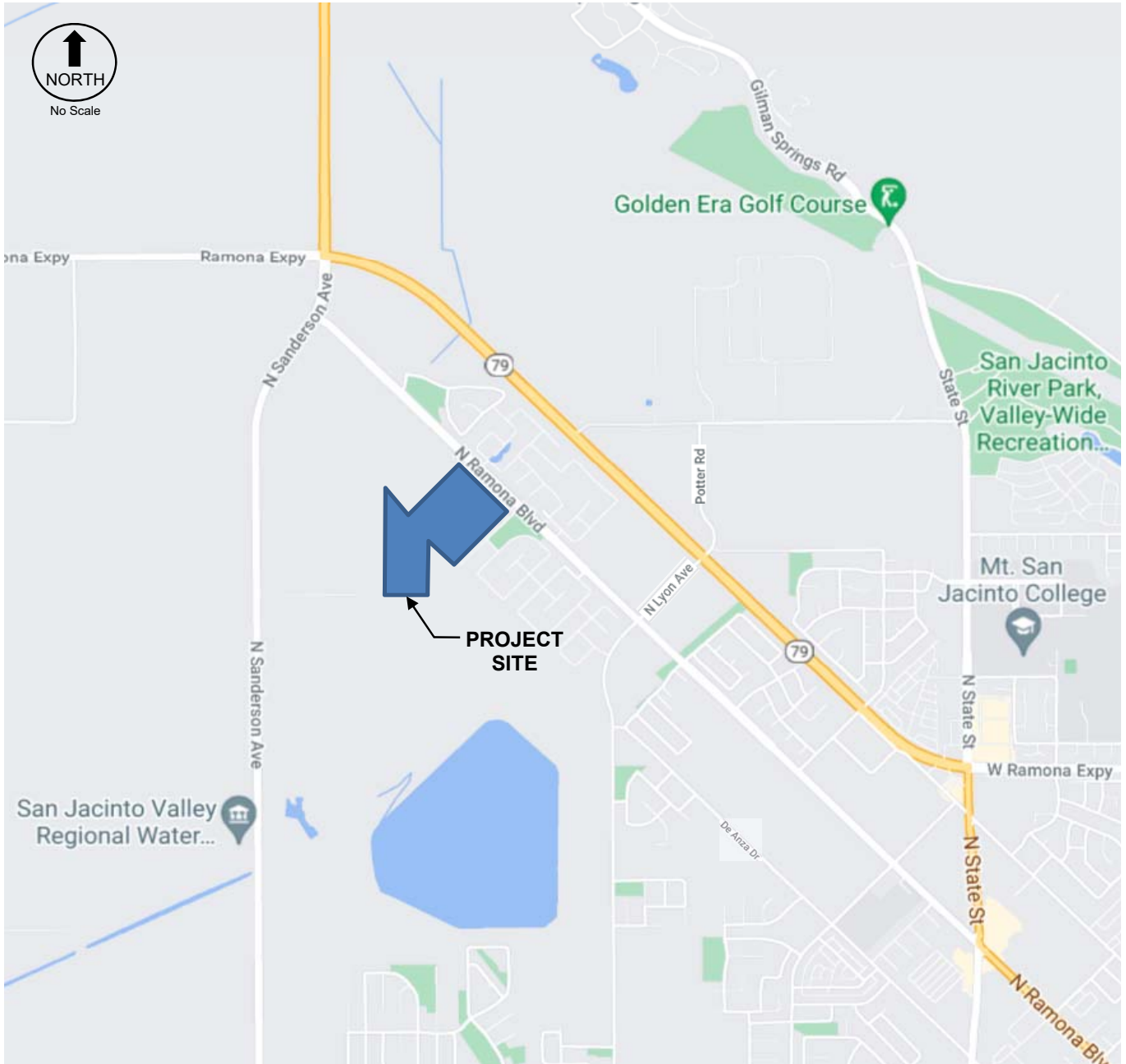
EXHIBIT 1. VICINITY MAP
No Scale

K2 Traffic Engineering, Inc.

CITY OF SAN JACINTO
TENTATIVE TRACT MAP 38066

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THAT PORTION OF FARM LOT 129 IN AND TO ANY PORTION OF THE LAND ASSOCIATION IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEASTERLY CORNER OF SAID LOT 129 WHICH CORNER IS ALSO THE NORTHEASTERLY CORNER OF FARM LOT 133 OF SAID LANDS OF SAN JACINTO LAND ASSOCIATION AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA; THENCE WESTERLY ALONG THE NORTHERLY LINE OF SAID LOT 133, A DISTANCE OF 561.00 FEET; THENCE NORTHERLY AND PARALLEL TO THE EASTERLY LINE OF SAID LOT 129, A DISTANCE OF 1,325.00 FEET, MORE OR LESS, TO THE NORTHEASTERLY LINE OF SAID LOT 129; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SAID LOT 129, A DISTANCE OF 740.00 FEET, MORE OR LESS, TO THE MOST NORTHERLY CORNER OF LANDS OF SAN JACINTO LAND ASSOCIATION AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY CALIFORNIA; THENCE SOUTHERLY ALONG THE EASTERLY LINE OF SAID LOT 129, A DISTANCE OF 750.00 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

APN: 436-030-001

PARCEL THREE:

THE SOUTHEASTERLY HALF OF FARM LOT 7 OF LANDS OF SAN JACINTO LAND ASSOCIATION, IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY.

APN: 436-040-006

PARCEL FOUR:

THE NORTHWESTERLY QUARTER OF FARM LOT 9 OF LANDS OF SAN JACINTO LAND ASSOCIATION, IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY.

APN: 436-040-008

TITLE EXCEPTIONS AND EASEMENTS

PER TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY DATED JANUARY 14, 2019, ORDER NUMBER: 00214622-994-WU-OH

PROPERTY HEREIN DESCRIBED LYING WITHIN DE ANZA DRIVE, A PORTION OF WHICH WAS ACCEPTED BY RESOLUTION EXECUTED BY THE BOARD OF SUPERVISORS FOR THE COUNTY OF RIVERSIDE

RECORDING DATE: JANUARY 27, 1953
RECORDING NO.: BOOK 1435, PAGE 487, OFFICIAL RECORDS

BENCHMARK:

RIVERSIDE COUNTY BENCH MARK
H-48, AUGUST 1985
ELEV.= 1464.075

0.3 MILE SE'LY ALONG RAMONA BLVD, FROM THE INTERSECTION OF SANDERSON AVE AND RAMONA BLVD, 32 FT.± SW'LY OF THE CENTERLINE OF RAMONA BLVD, 1 FT.± N'LY OF THE SE'LY END OF A 5 FT LONG X 2 FT HIGH CONCRETE HEADWALL OF A 48" CMP AT THE NE'LY CORNER OF A CONCRETE DRIVEWAY AT 37835 RAMONA BLVD. SET A STD. 3" DIA. ALUM. DISK, STAMPED AS ABOVE, IN TOP OF HEADWALL.

FLOOD ZONE

ACCORDING TO THE CITY OF MORENO VALLEY AREA BASED UPON THE NATIONAL INSURANCE PROGRAM MAPS THIS SITE LIES WITHIN FLOOD ZONE A, SHADED, COMMUNITY PANEL NO. 060605C0480H DATED APRIL 19, 2008 AND COMMUNITY PANEL NO. 060605C0480H, AUGUST 287, 2008 PUBLISHED BY THE FEDERAL INSURANCE ADMINISTRATION.

GENERAL NOTES:

PROJECT LOCATION: SW SIDE OF RAMONA BLVD BETWEEN SHIMMERING WAY AND BROAD VIEW LANE, SAN JACINTO, CA 92583

ASSESSORS PARCEL NUMBER: PORTION OF 436-030-001 436-040-006 & 008

EXISTING AND PROPOSED ZONING DESIGNATION: RM / RL

PLAN DESIGNATION: RM / RL

SUBDIVISION ACREAGE: 1,649,789 SF (37.874 ACRE)

DATE MAP PREPARED: JUNE, 2021

NUMBERED LOTS/DWELLING UNITS: 184 LOTS

MIN. LOT SIZE: 4,900 SF

UTILITY PURVEYORS

ELECTRIC: SOUTHERN CALIFORNIA EDISON (800) 655-4555

GAS: THE GAS COMPANY 527 N SAN JACINTO AVE, HEMET, CA 92583 TEL: 1-800-427-2200

WATER & SEWER: EASTERN MUNICIPAL WATER DISTRICT 2270 TRUMBLE ROAD (951) 928-3777

CABLE PROGRAMMING: TIME WARNER TEL: 1-800-892-2253

TELEPHONE/TING TV: VERIZON CALIFORNIA 2045 SAN JACINTO AVENUE, SAN JACINTO, CA 92583 TEL: 1-800-892-2253

SCHOOL DISTRICT: SAN JACINTO UNIFIED SCHOOL DISTRICT 2045 SAN JACINTO AVENUE, SAN JACINTO TEL: 1-800-892-2253

OWNER/DEVELOPER:

GOLDEN OCEAN REALTY, LLC.
608 ROYAL OAKS DRIVE
BRADBURY, CA 91008
TEL: (626) 817-1107

LEGEND:

PROPERTY BOUNDARY
LOT LINE
CENTERLINE
OFFSITE R/W
EASEMENT LINE
STORM DRAIN
SEWER LINE
WATER LINE
PROPOSED AC PAVEMENT

SHEET INDEX

TENTATIVE TRACT MAP	1 & 2
CONCEPTUAL GRADING DRAINAGE PLAN	3
CONCEPTUAL UTILITY PLAN	4
CONCEPTUAL SIGNING & STRIPING PLAN ALONG RAMONA BLVD	5

VICINITY MAP — NOT TO SCALE

GRAPHIC SCALE

"A" STREET
MAIN ENTRANCE PORTION
N.T.S.

"K" STREET (SECONDARY HIGHWAY)
N.T.S.

FUTURE "J" STREET TO SANDERSON AVE
N.T.S.

TYPICAL "A" STREET
TYPICAL "B" STREET "B" COURT
TYPICAL "C" "G" STREET "E" "F" "H" "I" "L" COURT
N.T.S.

RAMONA BLVD (SECONDARY HIGHWAY)
N.T.S.

"J" STREET (SECONDARY HIGHWAY)
N.T.S.

CITY OF SAN JACINTO
CALIFORNIA
VALLE RESEDA
TENTATIVE TRACT MAP
N, RAMONA BLVD, SAN JACINTO, CA 92582

W&W Land Design Consultants, Inc

SHEET 1 OF 5 SHEETS
SCALE: AS NOTED
PROJECT NO. 1932
DRAWING NO. XXXX

EXHIBIT 2. SITE PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = ___ ft.

LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- CENTERLINE
- OFFSITE R/W
- EASEMENT LINE
- STORM DRAIN
- SEWER LINE
- WATER LINE
- PROPOSED AC PAVEMENT

FUTURE "J" STREET TO SANDERSON AVE
N.T.S.

44.0' ROW EASEMENT
26.0'
50.0' FUTURE ROW
PROPOSED EDGE OF PAVEMENT
PROPOSED AC PAVEMENT 2%
PROPOSED
EDGE OF PAVEMENT
FUTURE S'LY ROW
2%

MATCH LINE - SEE SHEET 1

VACANT LAND APN: 436-010-001

VACANT LAND APN: PORTION OF 436-030-001

VACANT LAND APN: 438-030-002

VACANT LAND APN: 436-010-003

VACANT LAND APN: PORTION OF 436-030-001

VACANT LAND APN: 436-010-004

FUTURE "J" STREET
C/L FUTURE "J" STREET

FUTURE CALTRANS RIGHT-OF-WAY
FUTURE RIGHT OF WAY

N89°53'01"W, 489.06'
N89°53'01"W, 147.12'

C/L N SANDERSON AVENUE

26' WIDE PAVEMENT TO SANDERSON AVENUE

LOT AREA TABLE

LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)
1	6,511	27	5,000	53	5,724	79	5,275	105	5,070	131	5,070	157	5,029	183	5,068
2	5,460	28	5,000	54	5,232	80	5,146	106	5,100	132	5,100	158	5,005	184	6,555 (GROSS) 5,780 (NET)
3	5,460	29	5,000	55	5,036	81	5,105	107	5,200	133	5,200	159	5,180		
4	5,460	30	5,000	56	6,787	82	5,196	108	5,200	134	5,200	160	5,178		
5	5,460	31	5,000	57	6,735	83	5,000	109	5,200	135	5,200	161	5,002		
6	5,460	32	5,000	58	4,853	84	5,186	110	5,200	136	5,200	162	5,022		
7	5,460	33	5,388	59	5,056	85	5,000	111	5,000	137	5,200	163	5,079		
8	5,460	34	7,136	60	5,573	86	5,000	112	5,200	138	5,200	164	6,519 (GROSS) 6,151 (NET)		
9	5,460	35	6,638	61	5,573	87	5,000	113	5,000	139	5,200	165	6,536		
10	5,460	36	7,692	62	5,573	88	5,000	114	5,200	140	5,200	166	5,085		
11	5,460	37	6,639	63	5,460	89	5,000	115	5,200	141	5,200	167	5,014		
12	6,300 (GROSS) 4,942 (NET)	38	5,970	64	5,664	90	5,000	116	5,200	142	5,200	168	5,080		
13	5,513	39	5,000	65	5,777	91	5,000	117	5,200	143	5,200	169	5,167		
14	5,513	40	5,000	66	5,777	92	5,000	118	5,200	144	6,351	170	5,173		
15	5,513	41	5,000	67	5,752	93	5,000	119	5,200	145	5,033	171	5,005		
16	5,513	42	5,000	68	5,281	94	5,000	120	5,000	146	5,033	172	5,000		
17	5,513	43	5,000	69	5,060	95	5,000	121	5,389	147	5,027	173	5,074		
18	5,513	44	5,000	70	6,792	96	5,000	122	5,379	148	5,002	174	6,535		
19	5,513	45	5,000	71	7,085	97	5,000	123	5,200	149	5,177	175	6,557		
20	5,513	46	5,000	72	5,060	98	5,000	124	5,200	150	5,186	176	9,129		
21	7,909 (GROSS) 5,831 (NET)	47	5,000	73	5,775	99	5,000	125	5,200	151	5,009	177	5,022		
22	8,204 (GROSS) 5,791 (NET)	48	5,000	74	5,775	100	5,000	126	5,200	152	5,035	178	5,020		
23	5,776	49	5,448	75	5,775	101	5,000	127	5,000	153	5,041	179	5,185		
24	5,636 (GROSS) 5,292 (NET)	50	5,840	76	5,775	102	5,775	128	5,200	154	6,554	180	5,174		
25	5,006	51	5,750	77	5,658	103	5,658	129	5,200	155	6,517	181	5,006		
26	5,075	52	5,750	78	14,338	104	6,134	130	6,134	156	5,083	182	5,003		
		OPEN SPACE "A"	88,259	OPEN SPACE "B"	56,848										

NOTE:
EXCEPT LOT 12, 21, 22, 24, 164 & 184, ALL OTHER LOTS ARE IN SAME SQUARE FOOT AREA FOR BOTH OF GROSS AND NET AREA.

EXHIBIT 3 . SITE PLAN (CONTINUED)

STUDY SCENARIOS

According to the City-approved scoping agreement, provided in **Appendix A**, the following scenarios are included in this analysis:

   i. Existing Conditions

   ii. Existing Conditions Plus Project

   iii. Opening Year (2023) Without Project

   iv. Opening Year (2023) Plus Project

   v. Opening Year (2023) Plus Project with Mitigation Measure, If Necessary

The following intersections are studied for level of service analysis to evaluate the potential traffic impacts:

1. Sanderson Avenue at Ramona Expressway
2. Sanderson Avenue at Ramona Boulevard
3. Lyon Avenue/Potter Road at Ramona Expressway
4. Lyon Avenue at Ramona Boulevard
5. Ramona Boulevard at A Street
6. Sanderson Avenue at J Street/De Anza Drive

The Level of Service (LOS) analysis is performed using SYNCHRO software based on the methodologies prescribed in the Highway Capacity Manual (HCM). For signalized intersections, the average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. For unsignalized intersections, level of service is related to the control delay for each stop-controlled movement. **Table 1** provides the relationship between control delay per vehicle and LOS for both signalized and unsignalized intersections.

Table 1. LOS Definitions

LOS	Signalized Average Control Delay (sec/veh)	Unsignalized Average Control Delay (sec/veh)	General Description
A	0 - 10	0 - 10	Free Flow
B	> 10 - 20	> 10 - 15	Stable Flow (slight delays)
C	> 20 - 35	> 15 - 25	Stable Flow (acceptable delays)
D	> 35 - 55	> 25 - 35	Approaching Unstable Flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	> 55 - 80	> 35 - 50	Unstable Flow (intolerable delay)
F	> 80	> 50	Forced Flow (congested and queues fail to clear)

EXISTING CONDITIONS

The project is located on the southwest side of Ramona Boulevard between Shimmering Way and Ranch View Lane in the City of San Jacinto. The site is currently vacant and unimproved.

Ramona Boulevard is classified as a Secondary Roadway in the General Plan's roadway system map. It generally runs east-westerly with one lane in each direction divided by a stripped median. The posted speed limit is 45 mph in the project vicinity.

Sanderson Avenue is a north-southerly Urban Arterial in the General Plan's roadway system map that currently provides two lanes in each direction divided by a two-way-left-turn lane south of Ramona Boulevard. The posted speed limit is 55 mph in the project vicinity.

Ramona Expressway is a Limited Access Conventional Highway in the project vicinity and currently provides three lanes in each direction divided by a raised median and left turn lanes at major intersections. The posted speed limit is 65 mph in the project vicinity.

Lyon Avenue is a north-southerly Major Roadway in General Plan's roadway system map that currently provides one lane in each direction. The posted speed limit is 45 mph in the project vicinity. The intersection of Lyon Avenue and Ramona Boulevard is controlled by stop signs for all approaches. The intersection of Lyon Avenue and Ramona Expressway is controlled by traffic signals.

De Anza Drive is a Collector in General Plan's roadway system map that begins at Lyon Avenue and extends southerly to Main Street. It currently provides one lane in each direction and has a posted speed limit of 40 mph.

Turning movement counts in the AM and PM peak hour were collected on Thursday, July 29, 2021. The existing lane configuration and traffic volumes at the study intersections are shown in **Exhibit 4**. Complete traffic data can be found in **Appendix B**.

Level of service (LOS) and overall delay for existing conditions are shown in **Table 2**. The analysis worksheets can be found in **Appendix C**. For existing conditions, all study intersections currently operate at LOS D or better during the AM and PM peak hours, except for the following location:

- Sanderson Avenue at Ramona Expressway (#1): LOS F in the AM peak Hour

Table 2. Existing Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1. Sanderson Ave at Ramona Expy	TS	F	92.3	D	47.8
2. Sanderson Ave at Ramona Blvd	TS	B	10.7	B	15.7
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	24.7	C	25.8
4. Lyon Ave at Ramona Blvd	AWSC	A	9.5	B	11.2

Note: TS = Traffic Signal; AWSC = All-way-stop control; TWSC = Two-way-stop control; Delay in seconds

LEGEND:

○ STUDY INTERSECTION

▣ TRAFFIC SIGNAL

•— FUTURE ROAD

RAMONA EXPY #1

RAMONA EXPY

RAMONA BLVD

SANDERSON AVE

POTTER RD

LYON AVE

#2

#3

#4

NORTH
NOT TO SCALE

AM PEAK HOUR

#1
191
533
491
809
377
46
398
292
67
84
882
11

#2
551
79
160
32
863
12

#3
1
3
2
7
1091
19
1
695
86
169
3
24

#4
20
63
10
27
83
17
11
84
31
43
139
18

PM PEAK HOUR

#1
579
1502
829
613
396
53
398
516
158
177
804
31

#2
1423
295
150
56
870
38

#3
5
9
3
1
834
41
4
1195
134
145
3
41

#4
16
145
27
25
113
6
16
141
71
39
152
6

EXISTING LANE CONFIGURATION AND TRAFFIC VOLUMES

EXHIBIT 4

K2 TRAFFIC ENGINEERING

Valle Reseda, San Jacinto
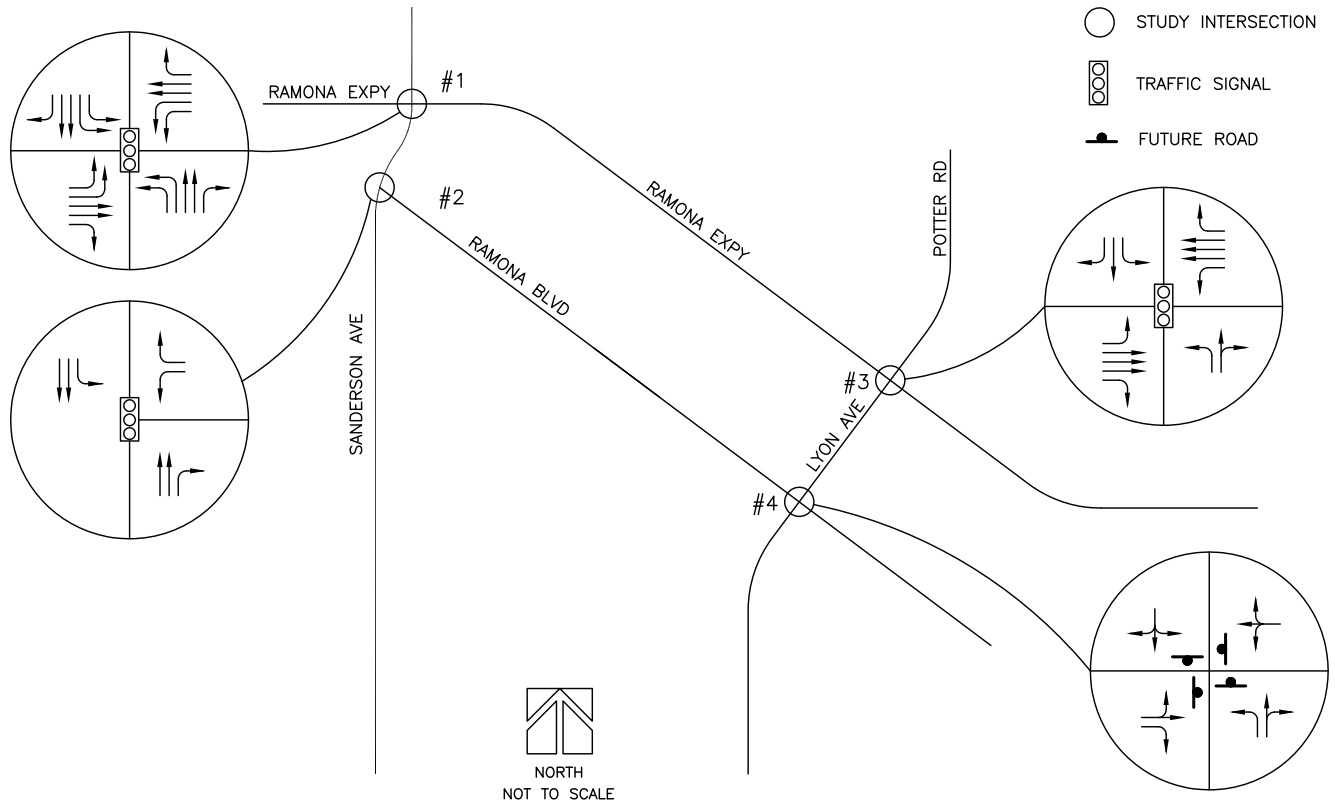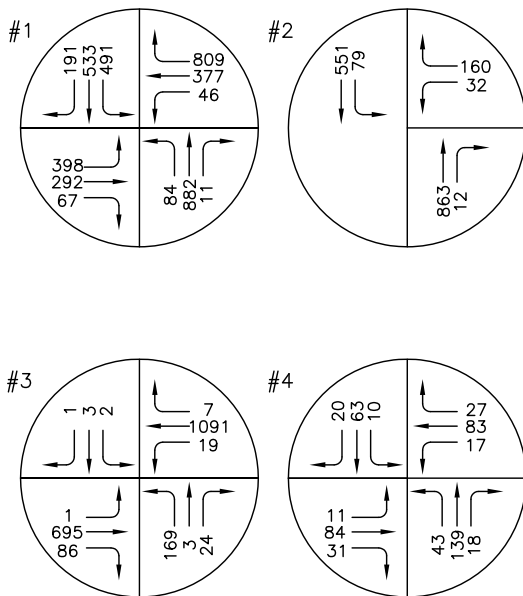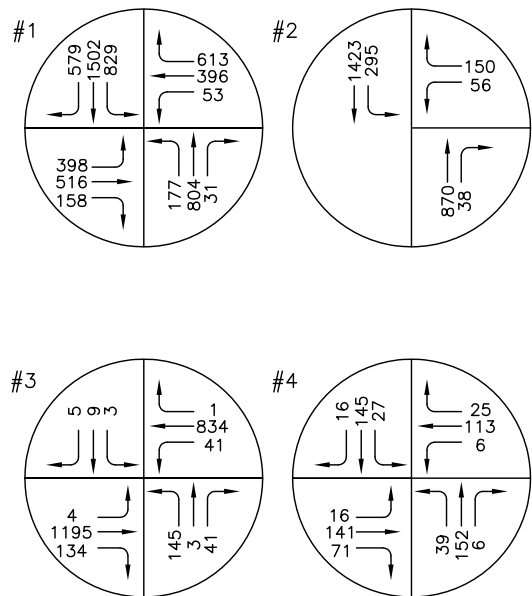
TRIP GENERATION

Trip generation represents the amount of traffic attracted and produced by the project development. Based upon the recommendations of "*Trip Generation, 10th Edition*," published by the Institute of Transportation Engineers (ITE), applicable trip generation rates are shown in **Table 4**.

Table 3. Trip Generation Rate

Land Use	Unit	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Single-Family Detached Housing (210)	Dwelling Unit	9.44	0.74	25%	75%	0.99	63%	37%

The calculated project trip generation and summarized in **Table 5**. The project is expected to have a trip generation of 136 trips in the AM peak hour, including 34 inbound and 102 outbound trips, 182 trips in the PM peak hour, including 115 inbound and 67 outbound trips, and 1,737 daily trips.

Table 4. Project Trip Generation

Land Use	Unit	Quantity	AM Peak Hour			PM Peak Hour			Daily
			Total	In	Out	Total	In	Out	
Single-Family Detached Housing (210)	Dwelling Unit	184	136	34	102	182	115	67	1,737

TRIP DISTRIBUTION

Trip distribution represents the directional orientation of traffic to and from the proposed project. Directional orientation is largely influenced by the geographical location of the site, among many other factors. The trip distribution pattern for the project is illustrated in **Exhibit 5**.

TRAFFIC ASSIGNMENT

The traffic assignment to and from the site has been based upon the results of trip generation, trip distribution, and access layouts. **Exhibit 6** illustrates the traffic assignment of the proposed project in the AM and PM peak hour.

EXHIBIT 5. TRIP DISTRIBUTION
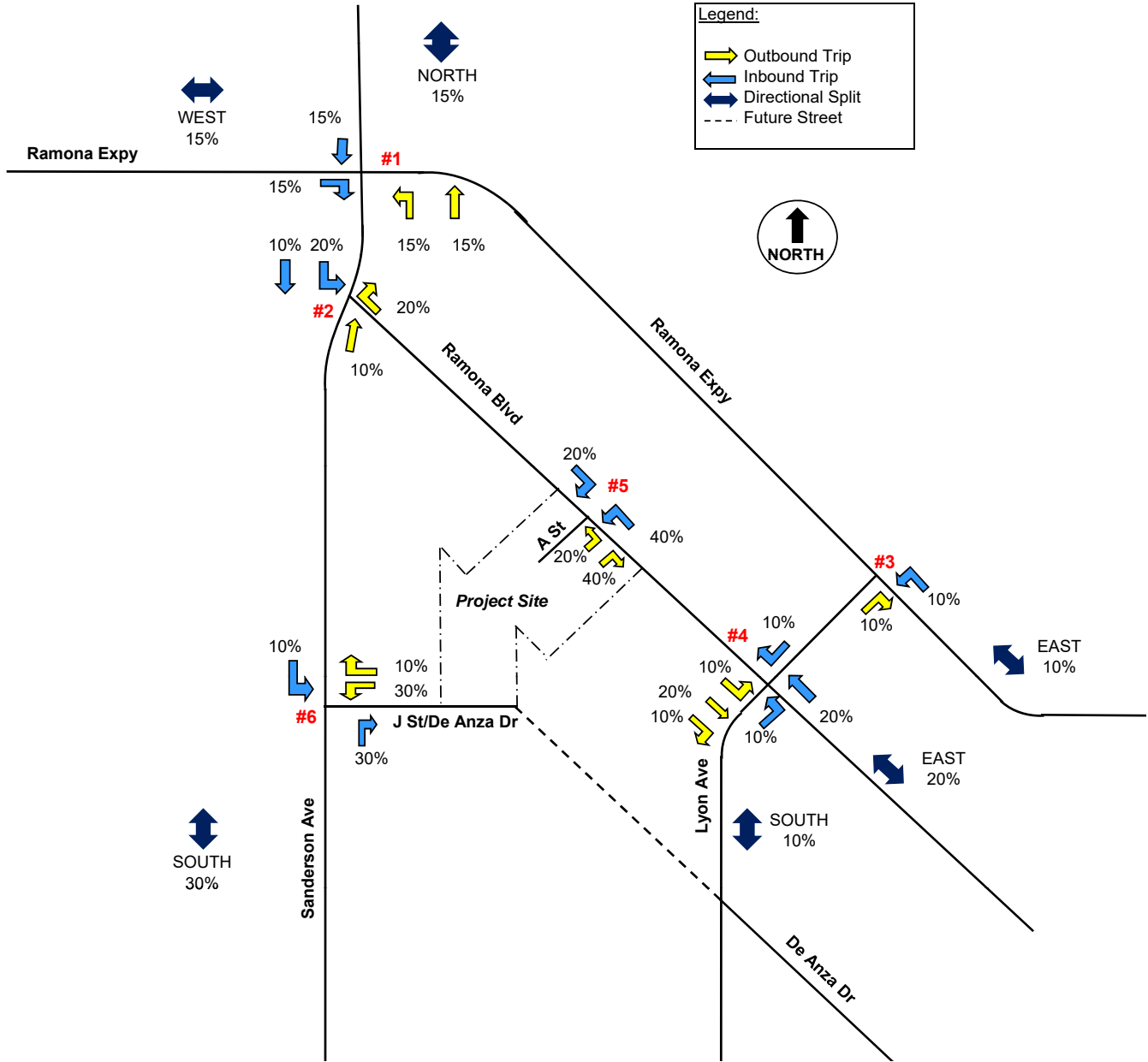
Legend:
- ⇒ Outbound Trip
- ⇒ Inbound Trip
- ⟷ Directional Split
- --- Future Street

NORTH 15%

WEST 15%

Ramona Expy

15%

#1

15%

15%   15%

10%   20%

#2

20%

10%

Ramona Blvd

Ramona Expy

20%

#5

40%

A St

20%

40%

Project Site

#3

10%

10%   10%

EAST 10%

#4   10%

10%

10%   20%

20%

10%

30%

#6

J St/De Anza Dr

30%

Sanderson Ave

Lyon Ave

EAST 20%

SOUTH 10%

SOUTH 30%

De Anza Dr

NORTH

RAMONA EXPY #1

#2

RAMONA EXPY

POTTER RD

RAMONA BLVD

SANDERSON AVE

#5

#3

LYON AVE

#6

#4

DE ANZA DR

NORTH
NOT TO SCALE

AM PEAK HOUR

#1   #2

#3   #4

#5   #6

PM PEAK HOUR

#1   #2

#3   #4

#5   #6
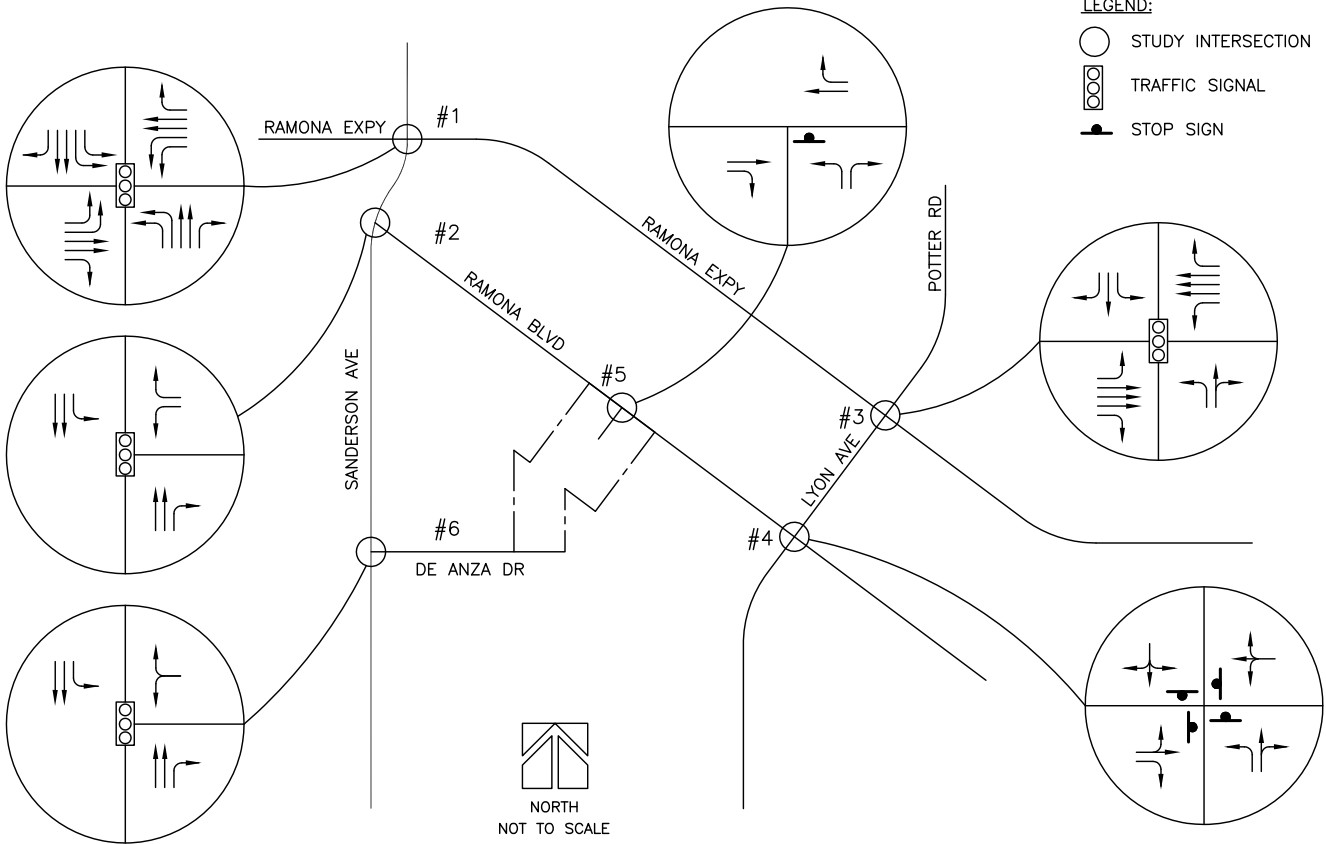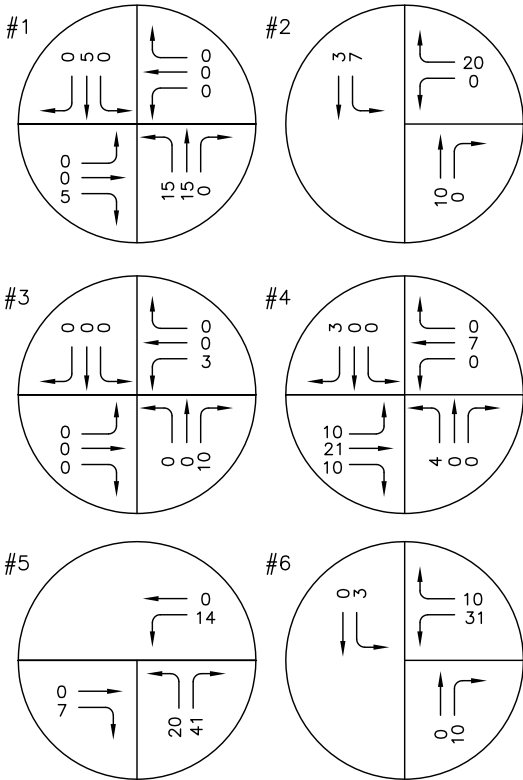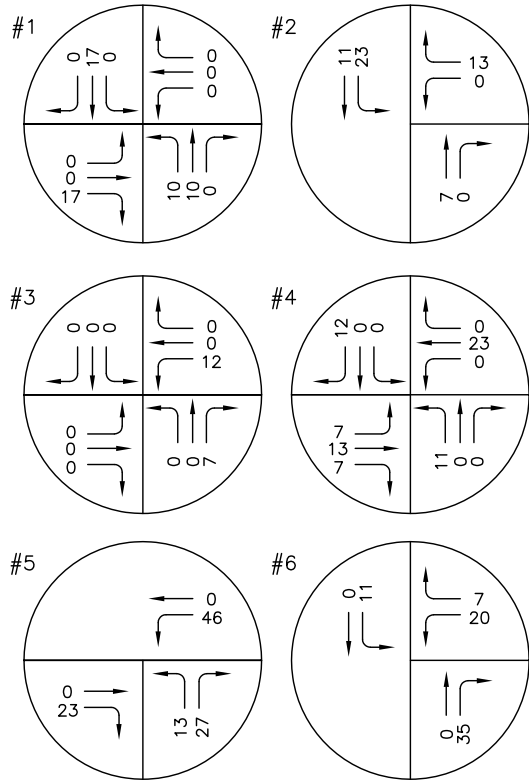
TRAFFIC ASSIGNMENT
EXHIBIT 6

K2 TRAFFIC ENGINEERING

Valle Reseda, San Jacinto

EXISTING CONDITIONS PLUS PROJECT

Traffic volumes at the study intersections for the existing conditions plus project scenario are shown in **Exhibit 7**. Analysis worksheets can be found in **Appendix C**.

The levels of service and approach delays are shown in **Table 5**. All intersections will operate at acceptable LOS D or better for the AM and PM peak hours except for the following intersection:

- Sanderson Avenue at Ramona Expressway (#1): LOS F in the AM Peak Hour

Table 5. Existing Conditions plus Project

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1. Sanderson Ave at Ramona Expy	TS	F	92.5	D	49.0
2. Sanderson Ave at Ramona Blvd	TS	B	12.3	B	18.1
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	24.7	C	26.2
4. Lyon Ave at Ramona Blvd	AWSC	A	9.9	B	12.0
5. Ramona Blvd at "A St"	TWSC	A	9.6	B	11.9
6. Sanderson Ave at De Anza Dr	TS	A	5.4	A	5.5

Note: TS = Traffic Signal; AWSC = All-way-stop control; TWSC = Two-way-stop control; Delay in seconds

LEGEND:
◯ STUDY INTERSECTION
▣ TRAFFIC SIGNAL
•— STOP SIGN

RAMONA EXPY #1
#2
RAMONA BLVD
RAMONA EXPY
POTTER RD
SANDERSON AVE
#5
#3
LYON AVE
#6
#4
DE ANZA DR

NORTH
NOT TO SCALE

AM PEAK HOUR

#1
191 538 491
809
377
46
398
292
72
99 897 11

#2
554 86
180
32
873 12

#3
1 3 2
7
1091
22
1
695
86
169 3 34

#4
23 63 10
27
90
17
21
105
41
47 139 18

#5
146
14
91
7
20 41

#6
583 3
10
31
863 10

PM PEAK HOUR

#1
579 1519 829
613
396
53
398
516
175
187 814 31

#2
1434 318
163
56
877 38

#3
5 9 3
1
834
53
4
1195
134
145 3 48

#4
28 145 27
25
136
6
23
154
78
50 152 6

#5
168
46
333
23
13 27

#6
1479 11
7
20
870 35
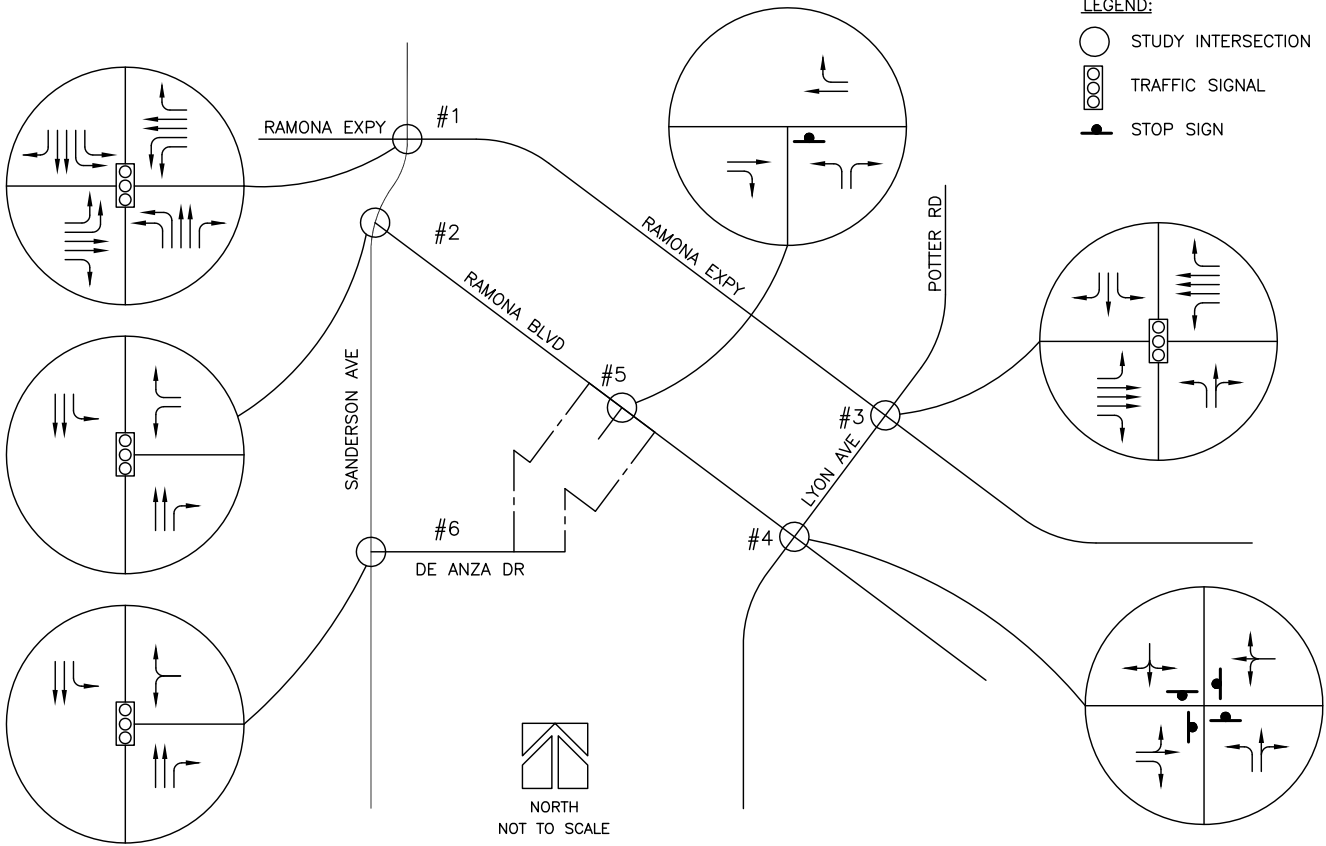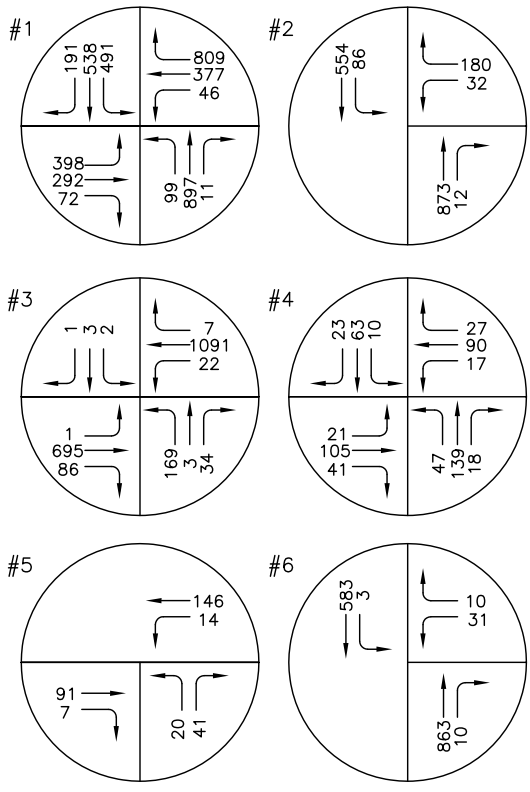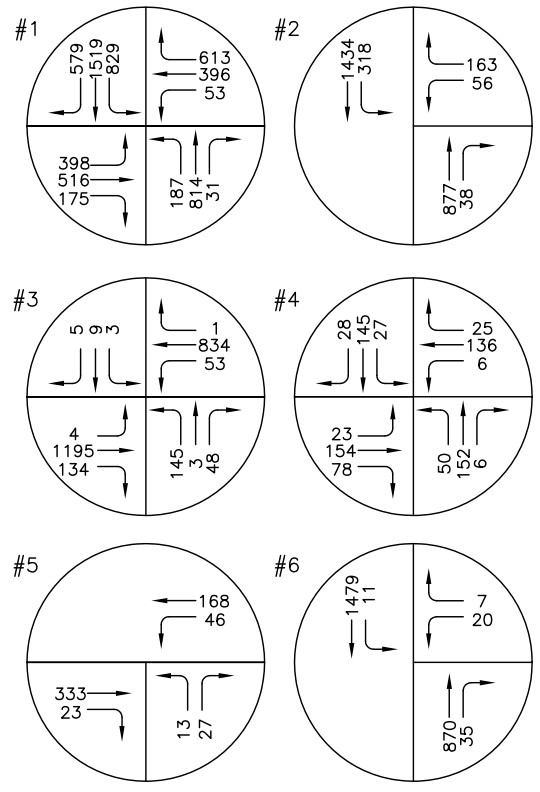
EXISTING PLUS PROJECT TRAFFIC VOLUMES
EXHIBIT 7

K2 TRAFFIC ENGINEERING

Valle Reseda, San Jacinto

OPENING YEAR WITHOUT PROJECT

For project opening year 2023, the annual ambient growth rate of two percent (2%) is used. This factor represents the traffic increases resulting from regional growth. Traffic volumes for the project opening year are illustrated in **Exhibit 8**.

The levels of service in the AM and PM peak hour for this scenario are shown in **Table 6**. The analysis worksheets can be found in **Appendix C**. All study intersections will operate at LOS D or better except for the following intersection:

- Sanderson Avenue at Ramona Expressway (#1): LOS F in the AM peak hour

Table 6. Opening Year (2023) without Project

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1. Sanderson Ave at Ramona Expy	TS	F	97.0	D	54.4
2. Sanderson Ave at Ramona Blvd	TS	B	11.0	B	16.8
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	25.8	C	27.6
4. Lyon Ave at Ramona Blvd	AWSC	A	9.7	B	11.5

Note: TS = Traffic Signal; AWSC = All-way-stop control; TWSC = Two-way-stop control; Delay in seconds

LEGEND:
◯ STUDY INTERSECTION
▯ TRAFFIC SIGNAL
━● FUTURE ROAD

RAMONA EXPY #1
RAMONA EXPY
RAMONA BLVD #2
SANDERSON AVE
POTTER RD
LYON AVE #3
#4

NORTH
NOT TO SCALE

AM PEAK HOUR

#1
199
555
511
842
392
48
414
304
70
87
918
11

#2
573
82
166
33
898
12

#3
1
3
2
7
1135
20
1
723
89
176
3
25

#4
21
66
10
28
86
18
11
87
32
45
145
19

PM PEAK HOUR

#1
602
1563
862
638
412
55
414
537
164
184
836
32

#2
1480
307
156
58
905
40

#3
5
9
3
1
868
43
4
1243
139
151
3
43

#4
17
151
28
26
118
6
17
147
74
41
158
6
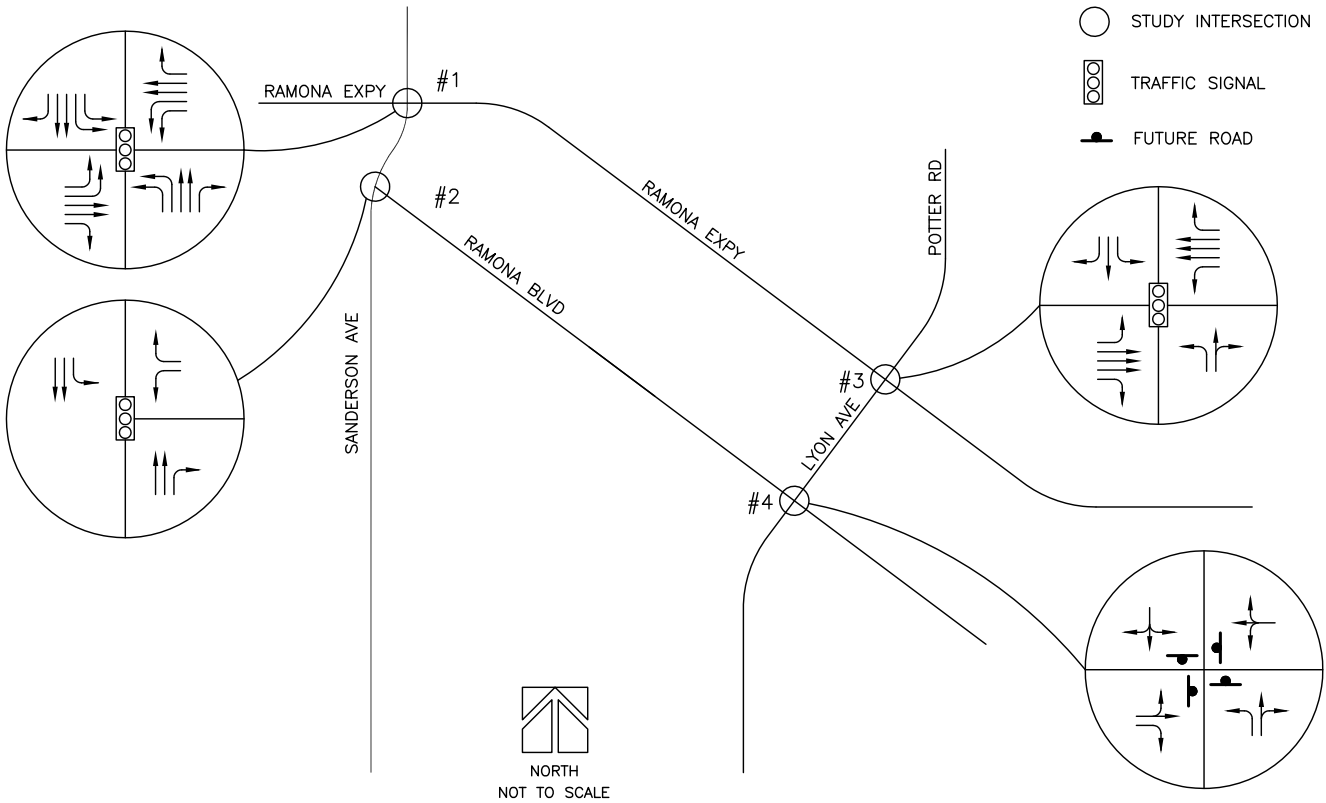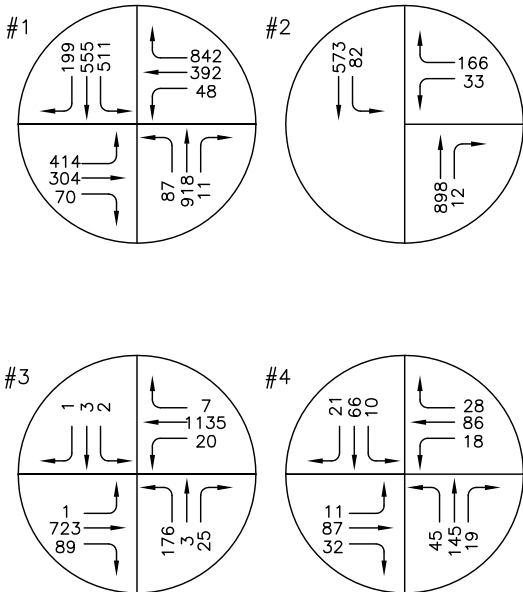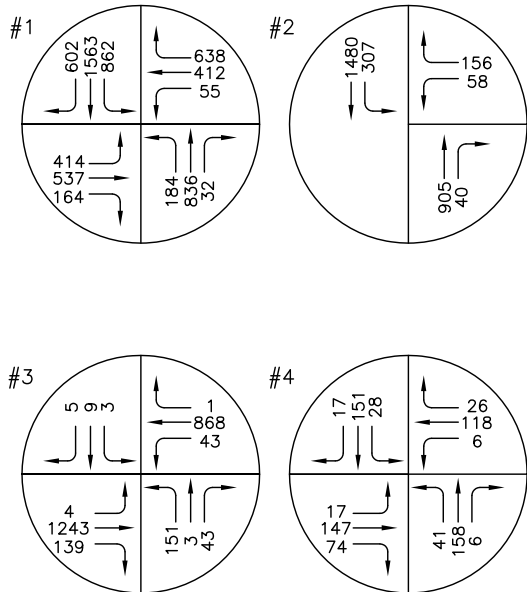
OPENING YEAR WITHOUT PROJECT
EXHIBIT 8

K2 TRAFFIC ENGINEERING

Valle Reseda, San Jacinto

OPENING YEAR PLUS PROJECT

Traffic volumes for the project opening year (2023) plus project traffic are illustrated in **Exhibit 9**. Analysis worksheets for this scenario are provided in **Appendix C**.

The levels of service and approach delays for the study intersections under opening year plus project conditions are shown in **Table 7**. All study intersections remain operating at acceptable LOS D or better except for the following intersections:

- Sanderson Avenue at Ramona Expressway (#1): LOS F in the AM peak hour and LOS E in the PM peak hour

Table 7. Opening Year (2023) plus Project

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1. Sanderson Ave at Ramona Expy	TS	F	97.4	E	55.9
2. Sanderson Ave at Ramona Blvd	TS	B	12.9	B	19.4
3. Lyon Ave at Ramona Expy	TS	C	25.8	C	28.1
4. Lyon Ave at Ramona Blvd	AWSC	A	10.0	B	12.3
5. Ramona Blvd at "A St"	TWSC	A	9.6	B	12.1
6. Sanderson Ave at De Anza Dr	TS	A	5.4	A	5.8

Note: TS = Traffic Signal; AWSC = All-way-stop control; TWSC = Two-way-stop control; Delay in seconds

LEGEND:
○ STUDY INTERSECTION
▯ TRAFFIC SIGNAL
•— STOP SIGN

RAMONA EXPY #1
RAMONA EXPY
RAMONA BLVD
POTTER RD
SANDERSON AVE
LYON AVE
#2
#5
#3
#6
DE ANZA DR
#4

NORTH
NOT TO SCALE

AM PEAK HOUR

#1
199 560 511
842
392
48
414
304
75
102 933 11

#2
576 89
186
33
908 12

#3
1 3 2
7
1135
23
1
723
89
176 3 35

#4
24 66 10
28
93
18
21
108
42
49 145 19

#5
152
14
95
7
20 41

#6
607 3
10
31
898 10

PM PEAK HOUR

#1
602 1580 862
638
412
55
414
537
181
194 846 32

#2
1491 330
169
58
912 40

#3
5 9 3
1
868
55
4
1243
139
151 3 49

#4
29 151 28
26
141
6
23
160
81
52 158 6

#5
175
46
346
23
13 27

#6
1539 11
7
20
905 35
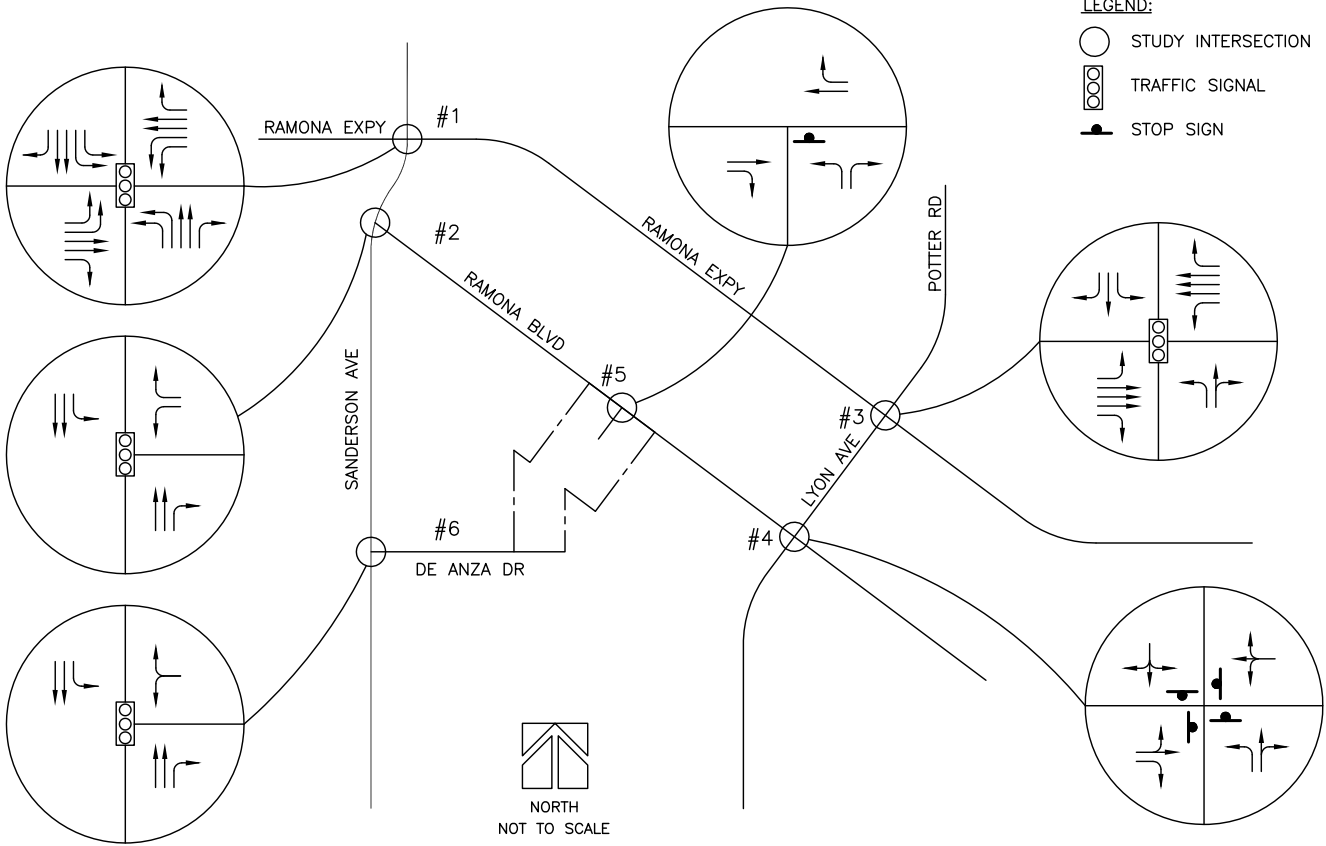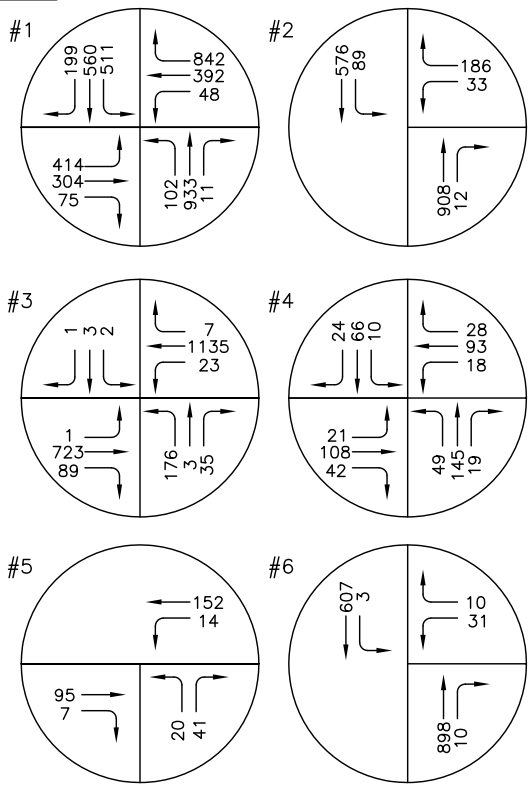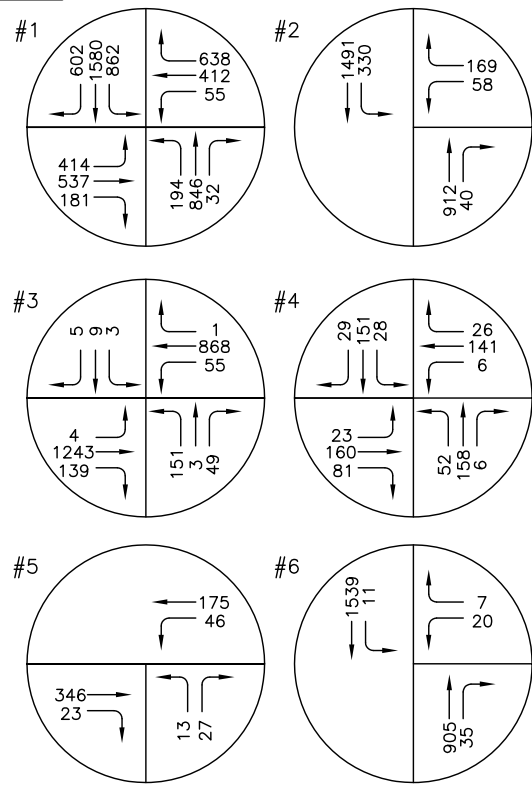
OPENING YEAR PLUS PROJECT

EXHIBIT 9

K2 TRAFFIC ENGINEERING

Valle Reseda, San Jacinto

GENERAL PLAN REQUIREMENT

According to the City of San Jacinto "*Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*" and consistent with the acceptable LOS in the City's General Plan, the City considers the following criteria in signalized intersection operating requirements:

- Any signalized study intersection operating at an acceptable LOS D or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or LOS F shall identify improvements to improve operations to LOS D or better.

- Any signalized intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

The City considers the following unsignalized intersection criteria when identifying operational deficiencies:

- An operational improvement would be required if either section a) or both sections b) and c) occur:

  a) The addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or F.
  OR

  b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a LOS E or F,
  AND

  c) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

If the conditions above are satisfied, improvements should be identified that achieve the following:

- LOS D or better for case a) or to pre-project LOS and delay for case b)

Based on existing conditions, project traffic does not cause any operational deficiency at study intersections, as shown in **Table 8**. Therefore, local improvements are not required.

Table 8. Operational Deficiency Analysis – Existing Conditions

Intersection	Control Type	Without Project		With Project		Target LOS	Delay Increase	Operational Deficiency
		LOS	Delay	LOS	Delay			
AM Peak Hour								
1. Sanderson Ave at Ramona Expy	TS	**F**	92.3	**F**	92.5	-	**0.2 (<5, OK)**	No
2. Sanderson Ave at Ramona Blvd	TS	B	10.7	B	12.3	D (OK)	-	No
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	24.7	C	24.7	D (OK)	-	No
4. Lyon Ave at Ramona Blvd	AWSC	A	9.5	A	9.9	D (OK)	-	No
5. Ramona Blvd at "A St"	TWSC	-	-	A	9.6	D (OK)	-	No
6. Sanderson Ave at De Anza Dr	TS	-	-	A	5.5	D (OK)	-	No
PM Peak Hour								
1. Sanderson Ave at Ramona Expy	TS	D	47.8	D	49.0	D (OK)	-	No
2. Sanderson Ave at Ramona Blvd	TS	B	15.7	B	18.1	D (OK)	-	No
3. Lyon Ave at Ramona Expy	TS	C	25.8	C	26.2	D (OK)	-	No
4. Lyon Ave at Ramona Blvd	AWSC	B	11.2	B	12.0	D (OK)	-	No
5. Ramona Blvd at "A St"	TWSC	-	-	B	11.9	D (OK)	-	No
6. Sanderson Ave at De Anza Dr	TS	-	-	A	5.5	D (OK)	-	No

Note: TS = Traffic Signal; AWSC = All-way-stop control; Delay in seconds

At the project opening year (2023), project traffic does not cause any operational deficiency at study intersections, as shown in **Table 9**. Therefore, local improvements are not required.

<p align="center">Table 9. Operational Deficiency Analysis – Opening Year (2023)</p>

Intersection	Control Type	Without Project		With Project		Target LOS	Delay Increase	Operational Deficiency
		LOS	Delay	LOS	Delay			
AM Peak Hour								
1. Sanderson Ave at Ramona Expy	TS	**F**	97.0	**F**	97.4	-	**0.5 (<5, OK)**	No
2. Sanderson Ave at Ramona Blvd	TS	B	11.0	B	12.9	D (OK)	-	No
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	25.8	C	25.8	D (OK)	-	No
4. Lyon Ave at Ramona Blvd	AWSC	A	9.7	A	10.0	D (OK)	-	No
5. Ramona Blvd at "A St"	TWSC	-	-	A	9.6	D (OK)	-	No
6. Sanderson Ave at De Anza Dr	TS	-	-	A	5.4	D (OK)	-	No
PM Peak Hour								
1. Sanderson Ave at Ramona Expy	TS	D	54.4	**E**	55.9	-	**1.5 (<5, OK)**	No
2. Sanderson Ave at Ramona Blvd	TS	B	16.8	B	19.4	D (OK)	-	No
3. Lyon Ave/Potter Rd at Ramona Expy	TS	C	27.6	C	28.1	D (OK)	-	No
4. Lyon Ave at Ramona Blvd	AWSC	B	11.5	B	12.3	D (OK)	-	No
5. Ramona Blvd at "A St"	TWSC	-	-	B	11.5	D (OK)	-	No
6. Sanderson Ave at De Anza Dr	TS	-	-	A	5.8	D (OK)	-	No

Note: TS = Traffic Signal; AWSC = All-way-stop control; Delay in seconds

The study found that the intersection of Ramona Expressway and Sanderson Avenue has been operating at LOS F in the AM peak hour for existing conditions as well as the project opening year. However, the project's contribution to the pre-existing operational deficiency is negligible and local improvements are not required, according to City's local traffic assessment guidelines.

SITE ACCESS

Site access is provided on Ramona Boulevard by the proposed residential street temporarily named "A Street", which will be the main entrance to the project site. An exclusive eastbound right-turn pocket and an exclusive westbound left-turn pocket will be provided on Ramona Boulevard. This access will be controlled by a STOP sign posted on "A Street".

A secondary access point for the development will be provided on Sanderson Avenue at the proposed De Anza Drive, which provides one lane in each direction with a pavement width of 26 feet. The intersection of De Anza Drive and Sanderson Avenue will be controlled by traffic signals. Upon project completion, De Anza Drive will serve as a Collector for the subject community solely until future developments progress in the surrounding area.

The subject segment of De Anza Drive is anticipated to carry 40% of the site's total trip generation (1,737 daily trips), roughly equivalent to average daily traffic (ADT) of 700 trips. According to the Circulation Element of General Plan, the maximum roadway capacity of Collector is 13,000 ADT trips of two-way traffic. As shown in **Table 10**, the subject roadway segment of De Anza Drive east of Sanderson Avenue will operate at 5.4% of the roadway capacity and maintain LOS A.

Table 10. Roadway Segment Analysis

Roadway Segment	# of Lanes	Capacity	ADT	V/C	LOS
De Anza Dr (Collector) east of Sanderson Ave	2	13,000	700	0.054	A

APPENDIX A

SCOPING AGREEMENT

Project Scoping Form

This scoping form shall be submitted to the City of San Jacinto to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Valle Reseda
Project Address:	N. Ramona Blvd, San Jacinto
Project Opening Year:	2023
Project Description:	Proposed 184-unit single family residence

	Consultant:	Developer:
Name:	K2 Traffic Engineering, Inc.	Golden Ocean Realty, LLC
Address:	1442 Irvine Blvd, Suite 210	608 Deodar Lane
	Tustin, CA 92780	Bradbury, CA 91008
Telephone:	714-832-2116	951-741-6888
Fax/Email:	kay@k2traffic.com	zhongyuli24680@gmail.com

Trip Generation Information:

Trip Generation Data Source: ITE's Trip Generation, 10th Edition

Current General Plan Land Use:

Mediun Density Residential (MDR) and Medium-High Dennsity Residential (MHDR)

Proposed General Plan Land Use:

Median Density Residential (MDR)

Current Zoning:

Residential Median Density (RM) and Residential Low Density (RL)

Proposed Zoning:

Residential Low Density (RL)

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	0	0	0	34	102	136
PM Trips	0	0	0	115	67	182

See Exhibit 2

Trip Internalization: ☐ Yes ☒ No (__0__% Trip Discount)

Pass-By Allowance: ☐ Yes ☒ No (__0__% Trip Discount)

Potential Screening Checks

Is your project screened from specific analyses (see Page 8 of the guidelines related to LOS assessment and Page 9 related to VMT).

Is the project screened from LOS assessment?   ☐ Yes   ☒ No

LOS screening justification (see Page 8 of the guidelines): _____
   Not Applicable _____
_____
_____
_____

Is the project screened from VMT assessment?   ☒ Yes   ☐ No

VMT screening justification (see Page 9 of the guidelines): _____
   Within a low VMT generating TAZ based on Home-Based Work VMT, See Exhibit 4 ___
_____
_____
_____

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):   See Exhibit 3

North		South		East		West	
15	%	40	%	30	%	15	%

- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments   See Exhibit 5
- Attach site plan   See Exhibit 1
- Note other specific items to be addressed:
  - Site access
  - On-site circulation
  - ~~Parking~~
  - ~~Consistency with Plans supporting Bikes/Peds/Transit~~
  - Other _____
- Date of Traffic Counts New counts _____
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used _____
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

CITY OF SAN JACINTO
TENTATIVE TRACT MAP 38066

TITLE EXCEPTIONS AND EASEMENTS
PER TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY, DATED ON JANUARY 14, 2019, ORDER NUMBER: 00214622-994-WO-CH

LEGAL DESCRIPTION:
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THAT PORTION OF FARM LOT 129 OF LANDS OF SAN JACINTO LAND ASSOCIATION IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEASTERLY CORNER OF SAID LOT 129 WHICH CORNER IS ALSO THE NORTHEASTERLY CORNER OF FARM LOT 133 OF SAID LANDS OF SAN JACINTO LAND ASSOCIATION AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA...

PARCEL THREE:

THE SOUTHEASTERLY HALF OF FARM LOT 7 OF LANDS OF SAN JACINTO LAND ASSOCIATION, IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY.

APN: PORTION OF 438-030-001

PARCEL FOUR:

THE NORTHWESTERLY QUARTER OF FARM LOT 9 OF LANDS OF SAN JACINTO LAND ASSOCIATION, IN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 357 OF MAPS, RECORDS OF SAN DIEGO COUNTY.

APN: 438-040-008

BENCHMARK:
RIVERSIDE COUNTY BENCH MARK
H-48, AUGUST 1985
ELEV= 1464.075

FLOOD ZONE

GENERAL NOTES
PROJECT LOCATION: SW SIDE OF RAMONA BLVD BETWEEN SHIMMERING WAY AND RANCH VIEW LANE, SAN JACINTO, CA 92582

ASSESSORS PARCEL NUMBER: 438-030-001, 436-040-006 & 008

EXISTING AND PROPOSED ZONING DESIGNATION: RM / RL

DATE MAP PREPARED: JUNE, 2021

NUMBERED LOTS/DWELLING UNITS: 184 LOTS

UTILITY PURVEYORS
ELECTRIC: SOUTHERN CALIFORNIA EDISON Ph: (800) 655-4555

GAS: THE GAS COMPANY Ph: 1-800-427-2200

WATER & SEWER: EASTERN MUNICIPAL WATER DISTRICT 2270 TRUMBLE ROAD Ph: (951) 928-3777

CABLE/BROADBAND: TIME WARNER Ph: 1-800-892-2253

TELEPHONE/TVIS, TV /BROADBAND: VERIZON CALIFORNIA Ph: 1-800-483-4000

OWNER/DEVELOPER:
GOLDEN OCEAN REALTY, LLC.
608 DEODAR LANE
BRADBURY, CA 91008
TEL: (626) 817-1107

LEGEND:
- PROPERTY BOUNDARY
- LOT LINE
- CENTERLINE
- OFFSET R/W
- EASEMENT LINE
- STORM DRAIN
- SEWER LINE
- WATER LINE
- PROPOSED EDGE OF PAVEMENT AC PAVEMENT

SHEET INDEX
TENTATIVE TRACT MAP	1 & 2
CONCEPTUAL GRADING DRAINAGE PLAN	3
CONCEPTUAL UTILITY PLAN	4

VICINITY MAP — NOT TO SCALE
SITE

GRAPHIC SCALE

Cross Sections
"A" STREET MAIN ENTRANCE PORTION — N.T.S.

"K" STREET (SECONDARY HIGHWAY) — N.T.S.

FUTURE "J" STREET TO SANDERSON AVE — N.T.S.

TYPICAL "A" STREET, TYPICAL "B" STREET, "B" COURT, TYPICAL "C" "G" STREET, "E" "F" "H" "I" "L" COURT — N.T.S.

RAMONA BLVD (SECONDARY HIGHWAY) — N.T.S.

"J" STREET (SECONDARY HIGHWAY) — N.T.S.

CITY OF SAN JACINTO
CALIFORNIA
VALLE RESEDA
TENTATIVE TRACT MAP
N, RAMONA BLVD, SAN JACINTO, CA 92582

W&W Land Design Consultants, Inc

SHEET 1 OF 4 SHEETS
PROJECT NO. 1932
DRAWING NO. XXXX
SCALE: AS NOTED

EXHIBIT 1-1. PROPOSED SITE PLAN

MATCH LINE - SEE SHEET 2

CITY OF SAN JACINTO
TENTATIVE TRACT MAP 38066

N

GRAPHIC SCALE

(IN FEET)
1 inch = ___ ft.

LEGEND:

——————	PROPERTY BOUNDARY
————	LOT LINE
—·—·—	CENTERLINE
—··—··—	OFFSITE R/W
————	EASEMENT LINE
——SD——	STORM DRAIN
——S——	SEWER LINE
——W——	WATER LINE
�	PROPOSED AC PAVEMENT

44.0' ROW EASEMENT
26.0'
PROPOSED EDGE OF PAVEMENT
2%

FUTURE "J" STREET TO SANDERSON AVE
N.T.S.

50.0' FUTURE ROW
26.0'
FUTURE S'LY ROW
PROPOSED AC PAVEMENT 2%
PROPOSED EDGE OF PAVEMENT

MATCH LINE - SEE SHEET 1

VACANT LAND APN: 436-010-001
VACANT LAND APN: 436-010-004
VACANT LAND APN: 436-010-003
VACANT LAND APN: PORTION OF 438-030-001
VACANT LAND APN: PORTION OF 436-030-001
VACANT LAND APN: 438-030-002

C/L FUTURE "J" STREET
C/L FUTURE "J" STREET

FUTURE CALTRANS RIGHT-OF-WAY
FUTURE RIGHT OF WAY

C/L N SANDERSON AVENUE

N89°53'01"W, 489.06'
N36°24'10"W, 84.26'
N89°53'01"W, 147.12'

LOT AREA TABLE

LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)	LOT NO.	LOT AREA (SF)
1	6,511	27	5,000	53	5,724	79	5,275	105	5,070	131	5,070	157	5,029	183	5,068
2	5,460	28	5,000	54	5,232	80	5,146	106	5,100	132	5,100	158	5,005	184	6,555
3	5,460	29	5,000	55	5,036	81	5,105	107	5,200	133	5,200	159	5,180		
4	5,460	30	5,000	56	6,767	82	5,196	108	5,200	134	5,200	160	5,178		
5	5,460	31	5,000	57	6,735	83	5,186	109	5,000	135	5,200	161	5,002		
6	5,460	32	5,388	58	4,853	84	5,000	110	5,186	136	5,200	162	5,022		
7	5,460	33	7,136	59	5,055	85	5,000	111	5,000	137	5,070	163	5,079		
8	5,460	34	6,638	60	5,573	86	5,000	112	5,200	138	5,100	164	6,519		
9	5,460	35	5,460	61	5,573	87	5,000	113	5,200	139	6,137	165	6,536		
10	5,460	36	7,692	62	5,573	88	5,000	114	5,200	140	5,185	166	5,085		
11	5,460	37	6,639	63	5,460	89	5,000	115	5,200	141	5,049	167	5,014		
12	6,300	38	5,970	64	5,664	90	5,000	116	5,200	142	5,060	168	5,014		
13	5,513	39	5,000	65	5,970	91	5,777	117	5,200	143	5,167	169	5,181		
14	5,513	40	5,000	66	5,000	92	5,777	118	5,200	144	6,351	170	5,173		
15	5,513	41	5,000	67	5,752	93	5,752	119	5,200	145	6,557	171	5,005		
16	5,513	42	5,000	68	5,281	94	5,281	120	5,200	146	5,033	172	5,000		
17	5,513	43	5,000	69	5,060	95	5,060	121	5,389	147	5,027	173	5,074		
18	5,513	44	5,000	70	6,792	96	6,792	122	5,379	148	5,002	174	6,555		
19	5,513	45	5,000	71	7,065	97	7,065	123	5,200	149	5,177	175	6,557		
20	5,513	46	5,000	72	5,060	98	5,060	124	5,200	150	5,186	176	9,129		
21	7,909	47	5,000	73	5,775	99	5,775	125	5,200	151	5,009	177	5,022		
22	8,204	48	5,000	74	5,775	100	5,775	126	5,200	152	5,035	178	5,020		
23	5,776	49	5,448	75	5,775	101	5,775	127	5,200	153	5,041	179	5,185		
24	5,636	50	5,540	76	5,775	102	5,775	128	5,200	154	6,454	180	5,174		
25	5,006	51	5,750	77	5,658	103	5,658	129	5,200	155	6,517	181	5,006		
26	5,075	52	5,750	78	14,336	104	6,134	130	5,200	156	5,083	182	5,003		
OPEN SPACE "A"	88,259			OPEN SPACE "B"	56,848										

EXHIBIT 1-2. PROPOSED SITE PLAN

EXHIBIT 2. TRIP GENERATION

TABLE 1. TRIP GENERATION RATE (ITE)

LAND USE	UNIT	Daily	AM Peak			PM Peak		
			Total	IN	OUT	Total	IN	OUT
Single-Family Detached Housing (210)	Dwelling Units	9.44	0.74	25%	75%	0.99	63%	37%

Note: Fitted Curve Equation: Ln(T)=0.74 Ln(X)+2.89; X=1000 Sq. Ft. GFA

Source: Trip Generation Manual, 10th Edition

TABLE 2. TRIP GENERATION

LAND USE	UNIT	Quantity	AM Peak			PM Peak			Daily
			Total	IN	OUT	Total	IN	OUT	
Single-Family Detached Housing (210)	Dwelling Units	184	136	34	102	182	115	67	1,737

EXHIBIT 3. TRIP DISTRIBUTION

Legend:
- → Outbound Trip
- ← Inbound Trip
- ↔ Directional Split
- --- Future Street

NORTH 15%

WEST 15%

Ramona Expy

15%

#1

15%

15% 15%

10% 20%

#2

20%

10%

Ramona Blvd

Ramona Expy

NORTH

20%

#4

A St

20%

40%

40%

#6

Project Site

10%

EAST 10%

10%

10%

#5

10%

10%

30%

10%

20%

10%

20%

#3

J St/De Anza Dr

30%

Lyon Ave

10%

EAST 20%

Sanderson Ave

SOUTH 30%

SOUTH 10%

De Anza Dr

K2 Traffic Engineering, Inc.
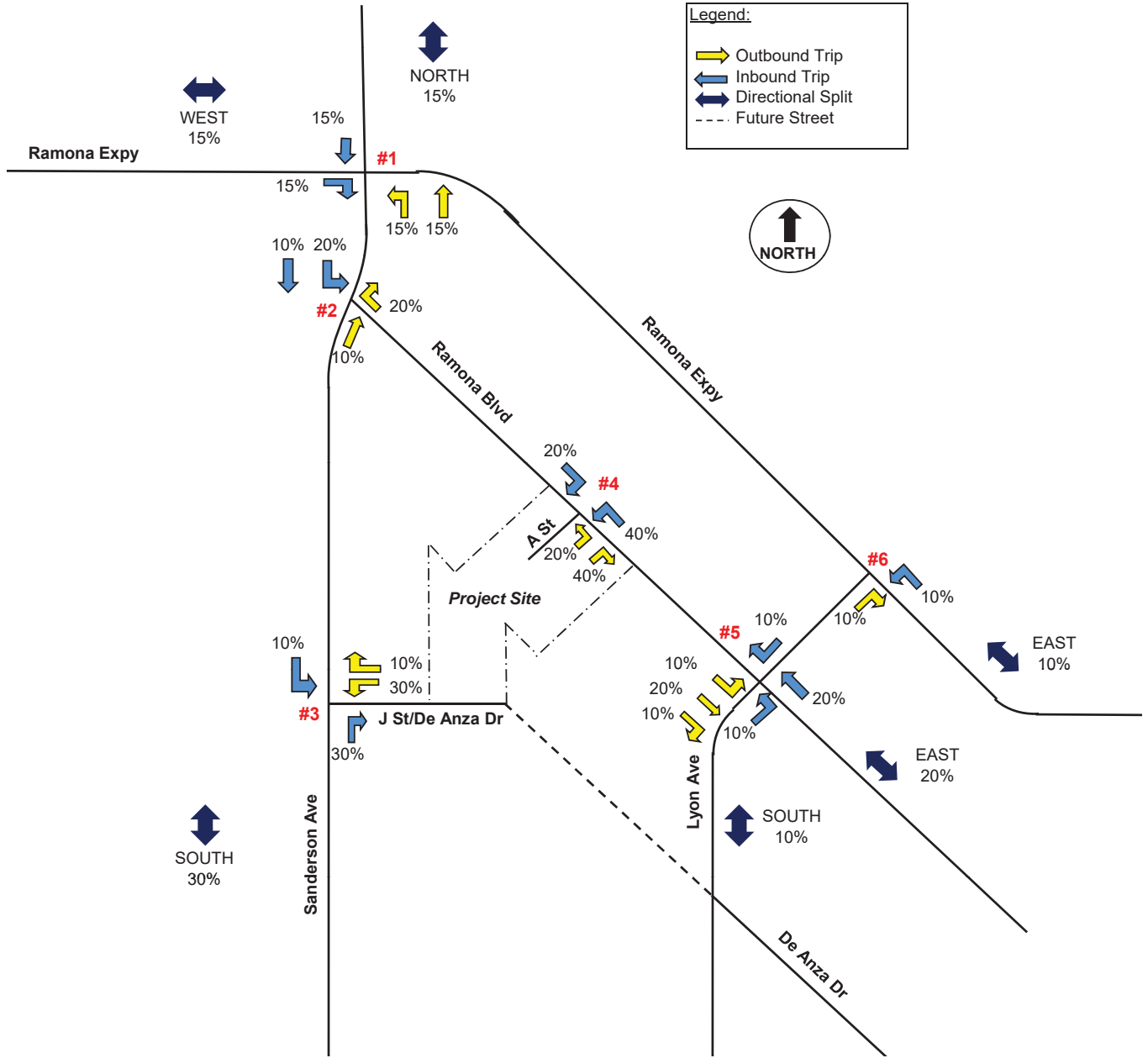
EXHIBIT 4. VMT SCREENING – RIVTAM MODEL

APN:436040006; TAZ:4,209

Within a Transit Priority Area (TPA)?
No (Fail)

Within a low VMT generating TAZ based on Total VMT?
No (Fail)
Jurisdictional average 2012 daily total VMT per service population = 28.88
Project TAZ 2012 daily total VMT per service population = 57.84

Within a low VMT generating TAZ based on Residential Home-Based VMT?
No (Fail)
Jurisdictional average 2012 daily residential home-based VMT per capita = 14.49
Project TAZ 2012 daily residential home-based VMT per capita = 23.59

Within a low VMT generating TAZ based on Home-Based Work VMT?
Yes (Pass)
Jurisdictional average 2012 daily home-based work VMT per worker = 7.59
Project TAZ 2012 daily home-based work VMT per worker = 4.43

APN:436040008; TAZ:4,209

Within a Transit Priority Area (TPA)?
No (Fail)

Within a low VMT generating TAZ based on Total VMT?
No (Fail)
Jurisdictional average 2012 daily total VMT per service population = 28.88
Project TAZ 2012 daily total VMT per service population = 57.84

Within a low VMT generating TAZ based on Residential Home-Based VMT?
No (Fail)
Jurisdictional average 2012 daily residential home-based VMT per capita = 14.49
Project TAZ 2012 daily residential home-based VMT per capita = 23.59

Within a low VMT generating TAZ based on Home-Based Work VMT?
Yes (Pass)
Jurisdictional average 2012 daily home-based work VMT per worker = 7.59
Project TAZ 2012 daily home-based work VMT per worker = 4.43

APN:436030001; TAZ:4,209

Within a Transit Priority Area (TPA)?
No (Fail)

Within a low VMT generating TAZ based on Total VMT?
No (Fail)
Jurisdictional average 2012 daily total VMT per service population = 28.88
Project TAZ 2012 daily total VMT per service population = 57.84

Within a low VMT generating TAZ based on Residential Home-Based VMT?
No (Fail)
Jurisdictional average 2012 daily residential home-based VMT per capita = 14.49
Project TAZ 2012 daily residential home-based VMT per capita = 23.59

Within a low VMT generating TAZ based on Home-Based Work VMT?
Yes (Pass)
Jurisdictional average 2012 daily home-based work VMT per worker = 7.59
Project TAZ 2012 daily home-based work VMT per worker = 4.43

Notes:

- TPA designation is based on October 2018 conditions.
- Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.
- If VMT screening is desired for current baseline conditions, contact WRCOG for 2012 and 2040 VMT data. Interpolated VMT results can be obtained using the complete data set.
- VMT results do not account for full length of trips that occur beyond the SCAG region.

EXHIBIT 5. ADDITIONAL STUDY INFORMATION

A. Study Intersections:

1. Sanderson Ave at Ramona Expy	4. Ramona Blvd at A St
2. Sanderson Ave at Ramona Blvd	5. Lyon Ave at Ramona Blvd
3. Sanderson Ave at J St / De Anza Dr	6. Lyon Ave at Ramona Expy

B. Study Scenarios: Annual Ambient Growth Rate: 2%

  1 Existing Conditions

  2 Existing Conditions Plus Project

  3 Opening Year (2023) Without Project

  4 Opening Year (2023) Plus Project

  5 Opening Year (2023) Plus Project With Mitigation Measure, If Necessary

C. Phasing: Project will be constructed in one phase

APPENDIX B
TURNING MOVEMENT COUNT DATA

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	SAN JACINTO	PROJECT #:	
7/29/21	NORTH & SOUTH:	SANDERSON AVE	LOCATION #:	1
THURSDAY	EAST & WEST:	RAMONA EXPRESSWAY	CONTROL:	SIGNAL

NOTES:

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

	NORTHBOUND SANDERSON AVE			SOUTHBOUND SANDERSON AVE			EASTBOUND RAMONA EXPRESSWAY			WESTBOUND RAMONA EXPRESSWAY			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	2	2	1	2	2	1	2	2	1	
AM													
7:00 AM	18	214	3	105	136	51	81	74	15	10	94	193	994
7:15 AM	24	200	2	123	114	53	104	93	17	11	106	211	1,058
7:30 AM	27	227	2	117	118	45	111	70	17	18	91	214	1,057
7:45 AM	15	241	4	146	165	42	102	55	18	7	86	191	1,072
8:00 AM	22	216	1	96	129	53	89	65	14	5	71	174	935
8:15 AM	26	231	1	107	123	45	88	74	10	4	82	193	984
8:30 AM	11	238	5	110	120	52	81	70	8	2	86	149	932
8:45 AM	23	145	4	144	105	73	60	54	15	7	88	124	842
VOLUMES	166	1,712	22	948	1,010	414	716	555	114	64	704	1,449	7,874
APPROACH %	9%	90%	1%	40%	43%	17%	52%	40%	8%	3%	32%	65%	
APP/DEPART	1,900	/	3,877	2,372	/	1,188	1,385	/	1,525	2,217	/	1,284	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	84	882	11	491	533	191	398	292	67	46	377	809	4,181
APPROACH %	9%	90%	1%	40%	44%	16%	53%	39%	9%	4%	31%	66%	
PEAK HR FACTOR		0.939			0.860			0.884			0.939		0.975
APP/DEPART	977	/	2,089	1,215	/	646	757	/	794	1,232	/	652	0
PM													
4:00 PM	24	178	4	214	352	140	109	170	48	9	100	141	1,489
4:15 PM	18	122	11	177	301	115	103	161	33	7	95	169	1,312
4:30 PM	31	224	10	221	382	122	84	113	28	8	76	131	1,430
4:45 PM	31	187	12	215	342	152	87	148	43	11	80	140	1,448
5:00 PM	60	187	6	212	369	133	127	118	30	19	116	155	1,532
5:15 PM	60	220	11	193	411	131	71	105	49	7	106	152	1,516
5:30 PM	26	210	2	209	380	163	113	145	36	16	94	166	1,560
5:45 PM	35	199	5	236	367	131	61	143	33	6	91	123	1,430
VOLUMES	285	1,527	61	1,677	2,904	1,087	755	1,103	300	83	758	1,177	11,717
APPROACH %	15%	82%	3%	30%	51%	19%	35%	51%	14%	4%	38%	58%	
APP/DEPART	1,873	/	3,459	5,668	/	3,287	2,158	/	2,841	2,018	/	2,130	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	177	804	31	829	1,502	579	398	516	158	53	396	613	6,056
APPROACH %	17%	79%	3%	28%	52%	20%	37%	48%	15%	5%	37%	58%	
PEAK HR FACTOR		0.869			0.967			0.912			0.916		0.971
APP/DEPART	1,012	/	1,815	2,910	/	1,713	1,072	/	1,376	1,062	/	1,152	0

SANDERSON AVE

◄— NORTH SIDE —►

RAMONA EXPRESSWAY   WEST SIDE   EAST SIDE   RAMONA EXPRESSWAY

◄— SOUTH SIDE —►

SANDERSON AVE

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	SAN JACINTO	PROJECT #:	
7/29/21	NORTH & SOUTH:	SANDERSON AVE	LOCATION #:	2
THURSDAY	EAST & WEST:	RAMONA BLVD	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

◄ W ▲ N ▼ S E ►

	NORTHBOUND SANDERSON AVE			SOUTHBOUND SANDERSON AVE			EASTBOUND RAMONA BLVD			WESTBOUND RAMONA BLVD			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	2	1	1	2	X	X	X	X	1	X	1	
AM													
7:00 AM		208	5	19	143					5		21	401
7:15 AM		199	6	22	126					6		25	384
7:30 AM		201	6	19	132					4		56	418
7:45 AM		223	1	24	164					12		39	463
8:00 AM		223	3	18	135					10		22	411
8:15 AM		216	2	18	120					6		43	405
8:30 AM		223	1	17	115					7		30	393
8:45 AM		148	5	12	112					10		34	321
VOLUMES	0	1,641	29	149	1,047	0	0	0	0	60	0	270	3,196
APPROACH %	0%	98%	2%	12%	88%	0%	0%	0%	0%	18%	0%	82%	
APP/DEPART	1,670 /		1,911	1,196 /		1,107	0 /		178	330 /		0	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	863	12	79	551	0	0	0	0	32	0	160	1,697
APPROACH %	0%	99%	1%	13%	87%	0%	0%	0%	0%	17%	0%	83%	
PEAK HR FACTOR		0.968			0.838			0.000			0.800		0.916
APP/DEPART	875 /		1,023	630 /		583	0 /		91	192 /		0	0
PM													
4:00 PM		182	8	56	351					10		21	628
4:15 PM		136	6	62	282					5		27	518
4:30 PM		234	8	68	346					9		26	691
4:45 PM		204	5	51	347					5		23	635
5:00 PM		226	10	69	352					7		29	693
5:15 PM		251	5	61	399					15		32	763
5:30 PM		187	14	94	334					25		58	712
5:45 PM		206	9	71	338					9		31	664
VOLUMES	0	1,626	65	532	2,749	0	0	0	0	85	0	247	5,304
APPROACH %	0%	96%	4%	16%	84%	0%	0%	0%	0%	26%	0%	74%	
APP/DEPART	1,691 /		1,873	3,281 /		2,834	0 /		597	332 /		0	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	870	38	295	1,423	0	0	0	0	56	0	150	2,832
APPROACH %	0%	96%	4%	17%	83%	0%	0%	0%	0%	27%	0%	73%	
PEAK HR FACTOR		0.887			0.934			0.000			0.620		0.928
APP/DEPART	908 /		1,020	1,718 /		1,479	0 /		333	206 /		0	0

SANDERSON AVE

RAMONA BLVD — WEST SIDE | EAST SIDE — RAMONA BLVD

◄— NORTH SIDE —►

◄— SOUTH SIDE —►

SANDERSON AVE

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	SAN JACINTO	PROJECT #:	
7/29/21	NORTH & SOUTH:	LYON AVE	LOCATION #:	3
THURSDAY	EAST & WEST:	RAMONA EXPRESSWAY	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
		LYON AVE			LYON AVE			RAMONA EXPRESSWAY			RAMONA EXPRESSWAY			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	1	0	1	2	0	1	3	1	1	3	1	
AM	7:00 AM	42	0	3	0	1	0	0	173	21	5	286	2	533
	7:15 AM	45	1	3	1	1	0	0	178	25	4	304	1	563
	7:30 AM	37	0	7	1	0	1	0	163	22	4	269	3	507
	7:45 AM	45	2	11	0	1	0	1	181	18	6	232	1	498
	8:00 AM	39	0	5	2	0	1	2	133	15	5	199	1	402
	8:15 AM	32	2	5	0	1	2	0	167	24	6	246	1	486
	8:30 AM	39	4	4	1	0	3	0	178	17	2	188	1	437
	8:45 AM	39	1	7	1	1	3	1	173	18	2	203	2	451
	VOLUMES	318	10	45	6	5	10	4	1,346	160	34	1,927	12	3,877
	APPROACH %	85%	3%	12%	29%	24%	48%	0%	89%	11%	2%	98%	1%	
	APP/DEPART	373	/	26	21	/	199	1,510	/	1,397	1,973	/	2,255	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	169	3	24	2	3	1	1	695	86	19	1,091	7	2,101
	APPROACH %	86%	2%	12%	33%	50%	17%	0%	89%	11%	2%	98%	1%	
	PEAK HR FACTOR		0.845			0.750			0.963			0.904		0.933
	APP/DEPART	196	/	11	6	/	108	782	/	721	1,117	/	1,261	0
PM	4:00 PM	29	1	3	0	1	1	1	310	44	10	213	0	613
	4:15 PM	42	0	7	1	3	1	2	315	45	8	234	0	658
	4:30 PM	29	2	14	2	1	1	0	284	39	13	170	0	555
	4:45 PM	23	1	12	0	4	1	1	306	23	10	195	0	576
	5:00 PM	51	0	8	0	1	2	1	290	27	10	235	1	626
	5:15 PM	27	0	12	1	1	0	0	255	37	10	218	0	561
	5:30 PM	39	2	8	1	0	0	0	290	38	8	212	0	598
	5:45 PM	30	1	6	0	1	1	0	331	38	11	172	0	591
	VOLUMES	270	7	70	5	12	7	5	2,381	291	80	1,649	1	4,778
	APPROACH %	78%	2%	20%	21%	50%	29%	0%	89%	11%	5%	95%	0%	
	APP/DEPART	347	/	13	24	/	383	2,677	/	2,456	1,730	/	1,926	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	145	3	41	3	9	5	4	1,195	134	41	834	1	2,415
	APPROACH %	77%	2%	22%	18%	53%	29%	0%	90%	10%	5%	95%	0%	
	PEAK HR FACTOR		0.801			0.850			0.921			0.890		0.918
	APP/DEPART	189	/	8	17	/	184	1,333	/	1,239	876	/	984	0
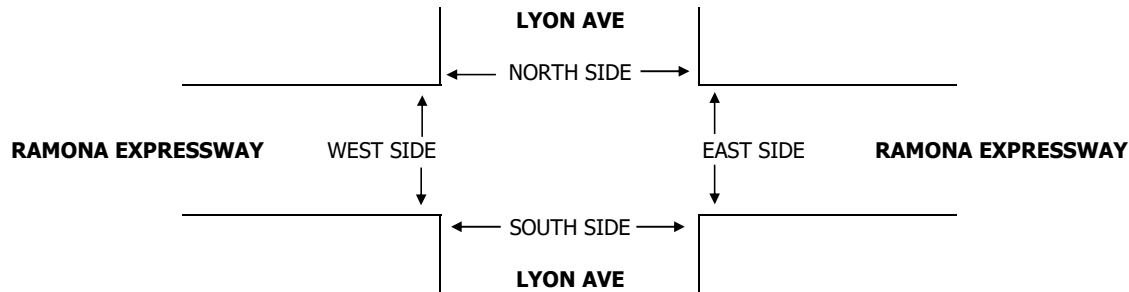
LYON AVE

← NORTH SIDE →

RAMONA EXPRESSWAY   WEST SIDE   EAST SIDE   RAMONA EXPRESSWAY

← SOUTH SIDE →

LYON AVE

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	SAN JACINTO	PROJECT #:	
7/29/21	NORTH & SOUTH:	LYON AVE	LOCATION #:	4
THURSDAY	EAST & WEST:	RAMONA BLVD	CONTROL:	4-WAY STOP

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N / ◄ W / E ► / S ▼

	NORTHBOUND LYON AVE			SOUTHBOUND LYON AVE			EASTBOUND RAMONA BLVD			WESTBOUND RAMONA BLVD			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
AM													
7:00 AM	10	37	1	2	22	5	7	15	1	8	15	1	124
7:15 AM	2	41	6	1	25	3	2	24	9	11	15	2	141
7:30 AM	4	34	8	1	23	3	5	22	3	3	24	8	138
7:45 AM	8	43	1	3	21	4	5	17	2	3	14	8	129
8:00 AM	8	35	0	2	14	4	5	22	6	3	24	5	128
8:15 AM	8	35	6	2	24	6	0	22	10	6	23	4	146
8:30 AM	12	30	8	3	12	6	4	24	7	2	18	11	137
8:45 AM	15	39	4	3	13	4	2	16	8	6	18	7	135
VOLUMES	67	294	34	17	154	35	30	162	46	42	151	46	1,078
APPROACH %	17%	74%	9%	8%	75%	17%	13%	68%	19%	18%	63%	19%	
APP/DEPART	395	/	370	206	/	242	238	/	213	239	/	253	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	43	139	18	10	63	20	11	84	31	17	83	27	546
APPROACH %	22%	70%	9%	11%	68%	22%	9%	67%	25%	13%	65%	21%	
PEAK HR FACTOR		0.862			0.727			0.900			0.962		0.935
APP/DEPART	200	/	177	93	/	111	126	/	112	127	/	146	0
PM													
4:00 PM	8	22	6	4	43	7	4	31	17	4	27	11	184
4:15 PM	12	42	2	7	41	4	2	37	20	2	24	5	198
4:30 PM	11	37	1	8	45	5	4	34	19	0	29	5	198
4:45 PM	5	28	3	3	31	6	5	39	14	1	28	3	166
5:00 PM	11	45	0	9	28	1	5	31	18	3	32	12	195
5:15 PM	6	31	1	11	38	3	7	31	16	3	22	4	173
5:30 PM	6	34	2	3	38	2	5	35	15	8	27	7	182
5:45 PM	11	32	0	4	42	6	2	39	24	4	27	6	197
VOLUMES	70	271	15	49	306	34	34	277	143	25	216	53	1,493
APPROACH %	20%	76%	4%	13%	79%	9%	7%	61%	31%	9%	73%	18%	
APP/DEPART	356	/	358	389	/	474	454	/	341	294	/	320	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	39	152	6	27	145	16	16	141	71	6	113	25	757
APPROACH %	20%	77%	3%	14%	77%	9%	7%	62%	31%	4%	78%	17%	
PEAK HR FACTOR		0.879			0.810			0.966			0.766		0.956
APP/DEPART	197	/	193	188	/	222	228	/	174	144	/	168	0

LYON AVE

← NORTH SIDE →

RAMONA BLVD — WEST SIDE — EAST SIDE — RAMONA BLVD

← SOUTH SIDE →

LYON AVE
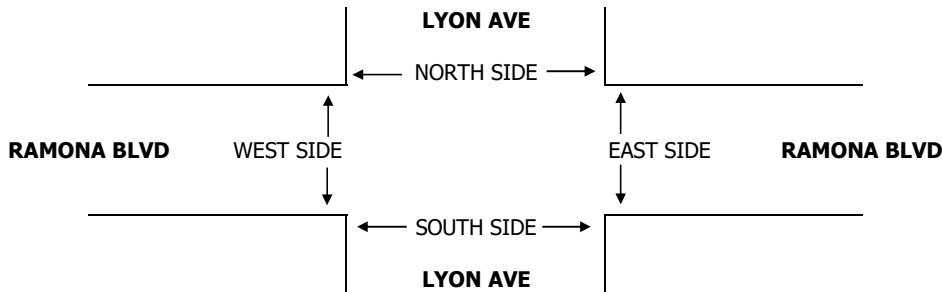
APPENDIX C
LEVEL OF SERVICE ANALYSIS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱↱	↑↑	↱	↱↱	↑↑	↱	↱↱	↑↑	↱	↱↱	↑↑	↱
Traffic Volume (veh/h)	398	292	67	46	377	809	84	882	11	491	533	191
Future Volume (veh/h)	398	292	67	46	377	809	84	882	11	491	533	191
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	433	317	73	50	410	879	91	959	12	534	579	208
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	907	474	124	591	554	149	1267	624	629	1760	986
Arrive On Green	0.13	0.26	0.26	0.04	0.17	0.17	0.04	0.36	0.36	0.18	0.50	0.50
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	433	317	73	50	410	879	91	959	12	534	579	208
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.5	7.9	3.6	1.5	11.8	18.0	2.8	25.7	0.5	16.2	10.6	6.2
Cycle Q Clear(g_c), s	13.5	7.9	3.6	1.5	11.8	18.0	2.8	25.7	0.5	16.2	10.6	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	907	474	124	591	554	149	1267	624	629	1760	986
V/C Ratio(X)	1.00	0.35	0.15	0.40	0.69	1.59	0.61	0.76	0.02	0.85	0.33	0.21
Avail Cap(c_a), veh/h	431	907	474	160	591	554	220	1267	624	974	1760	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	32.7	27.7	50.8	42.3	35.0	50.7	30.5	19.9	42.6	16.3	8.8
Incr Delay (d2), s/veh	44.4	0.2	0.1	2.1	3.5	272.8	4.0	4.3	0.1	4.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	3.9	1.6	0.8	6.0	58.4	1.4	13.3	0.2	8.1	5.3	2.8
LnGrp Delay(d),s/veh	91.6	33.0	27.9	52.9	45.8	307.8	54.6	34.7	20.0	47.0	16.8	9.3
LnGrp LOS	F	C	C	D	D	F	D	C	B	D	B	A
Approach Vol, veh/h		823			1339			1062			1321	
Approach Delay, s/veh		63.4			218.0			36.3			27.8	
Approach LOS		E			F			D			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	24.2	43.1	8.4	32.1	9.2	58.1	18.0	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	30.0	5.0	26.5	6.9	53.6	13.5	18.0
Max Q Clear Time (g_c+I1), s	18.2	27.7	3.5	9.9	4.8	12.6	15.5	20.0
Green Ext Time (p_c), s	1.5	1.3	0.0	1.7	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	92.3
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↟↟	↱	↱	↟↟
Traffic Volume (veh/h)	32	160	863	12	79	551
Future Volume (veh/h)	32	160	863	12	79	551
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	35	174	938	13	86	599
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	248	221	1718	768	130	2333
Arrive On Green	0.14	0.14	0.49	0.49	0.07	0.66
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	35	174	938	13	86	599
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	0.8	4.8	8.3	0.2	2.1	3.1
Cycle Q Clear(g_c), s	0.8	4.8	8.3	0.2	2.1	3.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	248	221	1718	768	130	2333
V/C Ratio(X)	0.14	0.79	0.55	0.02	0.66	0.26
Avail Cap(c_a), veh/h	258	230	1718	768	218	2333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	18.6	8.1	6.0	20.2	3.1
Incr Delay (d2), s/veh	0.3	15.9	1.3	0.0	5.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	4.3	0.1	1.2	1.6
LnGrp Delay(d),s/veh	17.2	34.5	9.3	6.0	25.8	3.4
LnGrp LOS	B	C	A	A	C	A
Approach Vol, veh/h	209		951		685	
Approach Delay, s/veh	31.6		9.3		6.2	
Approach LOS	C		A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.8	26.2				34.0		10.8
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	19.5				29.5		6.5
Max Q Clear Time (g_c+I1), s	4.1	10.3				5.1		6.8
Green Ext Time (p_c), s	0.0	3.8				3.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱	↱	↰	↑	↱
Traffic Volume (veh/h)	1	695	86	19	1091	7	169	3	24	2	3	1
Future Volume (veh/h)	1	695	86	19	1091	7	169	3	24	2	3	1
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1	755	93	21	1186	8	184	3	26	2	3	1
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	1304	406	43	1422	443	228	71	618	5	565	480
Arrive On Green	0.00	0.26	0.26	0.02	0.28	0.28	0.13	0.43	0.43	0.00	0.30	0.30
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	166	1442	1774	1863	1583
Grp Volume(v), veh/h	1	755	93	21	1186	8	184	0	29	2	3	1
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1608	1774	1863	1583
Q Serve(g_s), s	0.0	8.1	2.9	0.7	13.7	0.2	6.3	0.0	0.7	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	8.1	2.9	0.7	13.7	0.2	6.3	0.0	0.7	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	3	1304	406	43	1422	443	228	0	690	5	565	480
V/C Ratio(X)	0.35	0.58	0.23	0.48	0.83	0.02	0.81	0.00	0.04	0.41	0.01	0.00
Avail Cap(c_a), veh/h	142	1502	468	142	1502	468	269	0	690	142	565	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	20.3	18.4	30.2	21.2	16.3	26.5	0.0	10.4	31.2	15.2	15.2
Incr Delay (d2), s/veh	61.8	0.4	0.3	8.1	4.0	0.0	14.4	0.0	0.1	47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.8	1.3	0.5	6.9	0.1	4.0	0.0	0.3	0.1	0.0	0.0
LnGrp Delay(d),s/veh	93.0	20.7	18.7	38.3	25.2	16.4	41.0	0.0	10.5	79.0	15.2	15.2
LnGrp LOS	F	C	B	D	C	B	D		B	E	B	B
Approach Vol, veh/h		849			1215			213			6	
Approach Delay, s/veh		20.6			25.4			36.8			36.5	
Approach LOS		C			C			D			D	

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	4.7	31.4	6.0	20.6	12.5	23.5	4.6	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	23.5	5.0	18.5	9.5	19.0	5.0	18.5
Max Q Clear Time (g_c+I1), s	2.1	2.7	2.7	10.1	8.3	2.1	2.0	15.7
Green Ext Time (p_c), s	0.0	0.1	0.0	3.1	0.1	0.0	0.0	1.8

Intersection Summary

HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↗		⬦		↰	⇃			⬦	
Traffic Vol, veh/h	11	84	31	17	83	27	43	139	18	10	63	20
Future Vol, veh/h	11	84	31	17	83	27	43	139	18	10	63	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	91	34	18	90	29	47	151	20	11	68	22
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	9		10		9.6		9.5	
HCM LOS	A		A		A		A	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	12%	0%	13%	11%
Vol Thru, %	0%	89%	88%	0%	65%	68%
Vol Right, %	0%	11%	0%	100%	21%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	157	95	31	127	93
LT Vol	43	0	11	0	17	10
Through Vol	0	139	84	0	83	63
RT Vol	0	18	0	31	27	20
Lane Flow Rate	47	171	103	34	138	101
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.076	0.251	0.16	0.045	0.209	0.153
Departure Headway (Hd)	5.876	5.292	5.588	4.823	5.451	5.449
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	676	638	737	654	654
Service Time	3.636	3.052	3.356	2.591	3.518	3.519
HCM Lane V/C Ratio	0.077	0.253	0.161	0.046	0.211	0.154
HCM Control Delay	9.1	9.8	9.4	7.8	10	9.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	1	0.6	0.1	0.8	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ᵀᵀ	↑↑	↗	ᵀᵀ	↑↑	↗	ᵀᵀ	↑↑	↗	ᵀᵀ	↑↑	↗
Traffic Volume (veh/h)	398	292	72	46	377	809	99	897	11	491	538	191
Future Volume (veh/h)	398	292	72	46	377	809	99	897	11	491	538	191
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	433	317	78	50	410	879	108	975	12	534	585	208
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	903	479	124	588	552	164	1275	627	628	1752	981
Arrive On Green	0.12	0.26	0.26	0.04	0.17	0.17	0.05	0.36	0.36	0.18	0.50	0.50
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	433	317	78	50	410	879	108	975	12	534	585	208
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.5	7.9	3.9	1.5	11.8	18.0	3.3	26.3	0.5	16.3	10.8	6.2
Cycle Q Clear(g_c), s	13.5	7.9	3.9	1.5	11.8	18.0	3.3	26.3	0.5	16.3	10.8	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	903	479	124	588	552	164	1275	627	628	1752	981
V/C Ratio(X)	1.01	0.35	0.16	0.40	0.70	1.59	0.66	0.76	0.02	0.85	0.33	0.21
Avail Cap(c_a), veh/h	429	903	479	159	588	552	219	1275	627	970	1752	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	33.0	27.7	51.1	42.6	35.2	50.7	30.6	19.9	42.8	16.5	9.0
Incr Delay (d2), s/veh	45.7	0.2	0.2	2.1	3.6	274.6	4.4	4.4	0.1	4.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	3.9	1.7	0.8	6.1	58.6	1.7	13.6	0.2	8.1	5.4	2.9
LnGrp Delay(d),s/veh	93.1	33.2	27.8	53.2	46.2	309.9	55.1	35.0	19.9	47.3	17.0	9.5
LnGrp LOS	F	C	C	D	D	F	E	C	B	D	B	A
Approach Vol, veh/h		828			1339			1095			1327	
Approach Delay, s/veh		64.0			219.5			36.8			28.0	
Approach LOS		E			F			D			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	24.3	43.5	8.4	32.1	9.7	58.1	18.0	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	30.0	5.0	26.5	6.9	53.6	13.5	18.0
Max Q Clear Time (g_c+I1), s	18.3	28.3	3.5	9.9	5.3	12.8	15.5	20.0
Green Ext Time (p_c), s	1.5	1.0	0.0	1.7	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	92.5
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↱	↑↑
Traffic Volume (veh/h)	32	180	873	12	86	554
Future Volume (veh/h)	32	180	873	12	86	554
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	35	196	949	13	93	602
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	256	229	1696	759	135	2320
Arrive On Green	0.14	0.14	0.48	0.48	0.08	0.66
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	35	196	949	13	93	602
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	0.8	5.4	8.6	0.2	2.3	3.2
Cycle Q Clear(g_c), s	0.8	5.4	8.6	0.2	2.3	3.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	256	229	1696	759	135	2320
V/C Ratio(X)	0.14	0.86	0.56	0.02	0.69	0.26
Avail Cap(c_a), veh/h	256	229	1696	759	217	2320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	18.8	8.3	6.2	20.3	3.2
Incr Delay (d2), s/veh	0.2	26.0	1.3	0.0	6.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.0	4.4	0.1	1.3	1.6
LnGrp Delay(d),s/veh	17.0	44.8	9.7	6.2	26.3	3.5
LnGrp LOS	B	D	A	A	C	A
Approach Vol, veh/h	231		962			695
Approach Delay, s/veh	40.6		9.6			6.5
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.9	26.1				34.0		11.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	19.5				29.5		6.5
Max Q Clear Time (g_c+I1), s	4.3	10.6				5.2		7.4
Green Ext Time (p_c), s	0.0	3.8				3.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱	↑↑↑	↗	↱	↑↑↑	↗	↱	↱	↱	↱	↑	↗
Traffic Volume (veh/h)	1	695	86	22	1091	7	169	3	34	2	3	1
Future Volume (veh/h)	1	695	86	22	1091	7	169	3	34	2	3	1
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1	755	93	24	1186	8	184	3	37	2	3	1
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	1290	402	48	1422	443	228	52	635	5	565	480
Arrive On Green	0.00	0.25	0.25	0.03	0.28	0.28	0.13	0.43	0.43	0.00	0.30	0.30
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	120	1481	1774	1863	1583
Grp Volume(v), veh/h	1	755	93	24	1186	8	184	0	40	2	3	1
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1601	1774	1863	1583
Q Serve(g_s), s	0.0	8.1	2.9	0.8	13.7	0.2	6.3	0.0	0.9	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	8.1	2.9	0.8	13.7	0.2	6.3	0.0	0.9	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	3	1290	402	48	1422	443	228	0	687	5	565	480
V/C Ratio(X)	0.35	0.59	0.23	0.50	0.83	0.02	0.81	0.00	0.06	0.41	0.01	0.00
Avail Cap(c_a), veh/h	142	1502	468	142	1502	468	269	0	687	142	565	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	20.5	18.5	30.0	21.2	16.3	26.5	0.0	10.5	31.2	15.2	15.2
Incr Delay (d2), s/veh	61.8	0.4	0.3	7.7	4.0	0.0	14.4	0.0	0.2	47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.8	1.3	0.5	6.9	0.1	4.0	0.0	0.4	0.1	0.0	0.0
LnGrp Delay(d),s/veh	93.0	20.9	18.8	37.7	25.2	16.4	41.0	0.0	10.6	79.0	15.2	15.2
LnGrp LOS	F	C	B	D	C	B	D		B	E	B	B
Approach Vol, veh/h		849			1218			224			6	
Approach Delay, s/veh		20.8			25.4			35.6			36.5	
Approach LOS		C			C			D			D	

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	4.7	31.4	6.2	20.4	12.5	23.5	4.6	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	23.5	5.0	18.5	9.5	19.0	5.0	18.5
Max Q Clear Time (g_c+I1), s	2.1	2.9	2.8	10.1	8.3	2.1	2.0	15.7
Green Ext Time (p_c), s	0.0	0.1	0.0	3.0	0.1	0.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		⬥		↰	↳			⬥	
Traffic Vol, veh/h	21	105	41	17	90	27	47	139	18	10	63	23
Future Vol, veh/h	21	105	41	17	90	27	47	139	18	10	63	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	114	45	18	98	29	51	151	20	11	68	25
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	9.5		10.3		9.9		9.8	
HCM LOS	A		B		A		A	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	17%	0%	13%	10%
Vol Thru, %	0%	89%	83%	0%	67%	66%
Vol Right, %	0%	11%	0%	100%	20%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	157	126	41	134	96
LT Vol	47	0	21	0	17	10
Through Vol	0	139	105	0	90	63
RT Vol	0	18	0	41	27	23
Lane Flow Rate	51	171	137	45	146	104
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.085	0.258	0.215	0.06	0.225	0.162
Departure Headway (Hd)	6.023	5.438	5.659	4.869	5.552	5.587
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	591	655	629	728	641	635
Service Time	3.803	3.217	3.441	2.651	3.637	3.68
HCM Lane V/C Ratio	0.086	0.261	0.218	0.062	0.228	0.164
HCM Control Delay	9.4	10.1	10	8	10.3	9.8
HCM Lane LOS	A	B	A	A	B	A
HCM 95th-tile Q	0.3	1	0.8	0.2	0.9	0.6

Intersection						
Int Delay, s/veh	2.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↰	↑	↰↗	
Traffic Vol, veh/h	91	7	14	146	20	41
Future Vol, veh/h	91	7	14	146	20	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	8	15	159	22	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	107	0	288	99
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	189	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1484	-	702	957
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	843	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1484	-	695	957
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	1484	-
HCM Lane V/C Ratio	0.078	-	-	0.01	-
HCM Control Delay (s)	9.6	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	�		↑↑↑		↑	↑↑
Traffic Volume (veh/h)	31	10	863	10	3	583
Future Volume (veh/h)	31	10	863	10	3	583
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	34	11	938	11	3	634
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	69	22	1526	18	7	2130
Arrive On Green	0.05	0.05	0.43	0.43	0.00	0.60
Sat Flow, veh/h	1276	413	3676	42	1774	3632
Grp Volume(v), veh/h	46	0	463	486	3	634
Grp Sat Flow(s),veh/h/ln	1726	0	1770	1855	1774	1770
Q Serve(g_s), s	0.7	0.0	5.3	5.3	0.0	2.3
Cycle Q Clear(g_c), s	0.7	0.0	5.3	5.3	0.0	2.3
Prop In Lane	0.74	0.24		0.02	1.00	
Lane Grp Cap(c), veh/h	94	0	754	790	7	2130
V/C Ratio(X)	0.49	0.00	0.61	0.61	0.41	0.30
Avail Cap(c_a), veh/h	1187	0	1217	1276	339	2434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	5.8	5.8	13.0	2.5
Incr Delay (d2), s/veh	3.9	0.0	0.8	0.8	32.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.7	2.9	0.1	1.1
LnGrp Delay(d),s/veh	16.0	0.0	6.7	6.6	45.9	2.6
LnGrp LOS	B		A	A	D	A
Approach Vol, veh/h	46		949			637
Approach Delay, s/veh	16.0		6.6			2.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.6	15.6				20.3		5.9
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.0	18.0				18.0		18.0
Max Q Clear Time (g_c+I1), s	2.0	7.3				4.3		2.7
Green Ext Time (p_c), s	0.0	3.8				3.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱↱	↑↑	↗	↱↱	↑↑	↗	↱↱	↑↑	↗	↱↱	↑↑	↗
Traffic Volume (veh/h)	414	304	70	48	392	842	87	918	11	511	555	199
Future Volume (veh/h)	414	304	70	48	392	842	87	918	11	511	555	199
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	450	330	76	52	426	915	95	998	12	555	603	216
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	905	474	126	591	563	150	1246	615	650	1760	985
Arrive On Green	0.13	0.26	0.26	0.04	0.17	0.17	0.04	0.35	0.35	0.19	0.50	0.50
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	450	330	76	52	426	915	95	998	12	555	603	216
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.5	8.3	3.8	1.6	12.3	18.0	2.9	27.4	0.5	16.8	11.1	6.4
Cycle Q Clear(g_c), s	13.5	8.3	3.8	1.6	12.3	18.0	2.9	27.4	0.5	16.8	11.1	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	905	474	126	591	563	150	1246	615	650	1760	985
V/C Ratio(X)	1.04	0.36	0.16	0.41	0.72	1.62	0.63	0.80	0.02	0.85	0.34	0.22
Avail Cap(c_a), veh/h	431	905	474	160	591	563	220	1246	615	974	1760	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	32.9	27.8	50.8	42.5	34.7	50.7	31.5	20.3	42.3	16.4	8.9
Incr Delay (d2), s/veh	55.3	0.2	0.2	2.2	4.3	288.8	4.3	5.5	0.1	4.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	4.1	1.7	0.8	6.4	61.9	1.5	14.3	0.2	8.5	5.6	2.9
LnGrp Delay(d),s/veh	102.5	33.2	28.0	53.0	46.8	323.5	55.0	37.0	20.4	47.2	17.0	9.4
LnGrp LOS	F	C	C	D	D	F	E	D	C	D	B	A
Approach Vol, veh/h		856			1393			1105			1374	
Approach Delay, s/veh		69.2			228.8			38.4			28.0	
Approach LOS		E			F			D			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	24.9	42.4	8.4	32.1	9.2	58.1	18.0	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	30.0	5.0	26.5	6.9	53.6	13.5	18.0
Max Q Clear Time (g_c+I1), s	18.8	29.4	3.6	10.3	4.9	13.1	15.5	20.0
Green Ext Time (p_c), s	1.6	0.3	0.0	1.8	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.0
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	33	166	898	12	82	573
Future Volume (veh/h)	33	166	898	12	82	573
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	36	180	976	13	89	623
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	255	228	1703	762	132	2322
Arrive On Green	0.14	0.14	0.48	0.48	0.07	0.66
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	36	180	976	13	89	623
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	0.8	4.9	8.9	0.2	2.2	3.3
Cycle Q Clear(g_c), s	0.8	4.9	8.9	0.2	2.2	3.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	255	228	1703	762	132	2322
V/C Ratio(X)	0.14	0.79	0.57	0.02	0.67	0.27
Avail Cap(c_a), veh/h	256	229	1703	762	217	2322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	18.6	8.4	6.1	20.3	3.2
Incr Delay (d2), s/veh	0.2	16.8	1.4	0.0	5.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	4.5	0.1	1.3	1.6
LnGrp Delay(d),s/veh	17.1	35.4	9.8	6.1	26.1	3.5
LnGrp LOS	B	D	A	A	C	A
Approach Vol, veh/h	216		989			712
Approach Delay, s/veh	32.3		9.7			6.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.9	26.1				34.0		11.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	19.5				29.5		6.5
Max Q Clear Time (g_c+I1), s	4.2	10.9				5.3		6.9
Green Ext Time (p_c), s	0.0	3.8				3.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↗	↰	↑↑↑	↗	↰	↱	↱	↰	↑	↗
Traffic Volume (veh/h)	1	723	89	20	1135	7	176	3	25	2	3	1
Future Volume (veh/h)	1	723	89	20	1135	7	176	3	25	2	3	1
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1	786	97	22	1234	8	191	3	27	2	3	1
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	1314	409	45	1436	447	235	69	621	5	559	475
Arrive On Green	0.00	0.26	0.26	0.03	0.28	0.28	0.13	0.43	0.43	0.00	0.30	0.30
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	161	1447	1774	1863	1583
Grp Volume(v), veh/h	1	786	97	22	1234	8	191	0	30	2	3	1
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1607	1774	1863	1583
Q Serve(g_s), s	0.0	8.6	3.1	0.8	14.6	0.2	6.6	0.0	0.7	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	8.6	3.1	0.8	14.6	0.2	6.6	0.0	0.7	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	3	1314	409	45	1436	447	235	0	690	5	559	475
V/C Ratio(X)	0.36	0.60	0.24	0.49	0.86	0.02	0.81	0.00	0.04	0.41	0.01	0.00
Avail Cap(c_a), veh/h	140	1485	462	140	1485	462	266	0	690	140	559	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	20.6	18.6	30.5	21.5	16.4	26.7	0.0	10.5	31.5	15.5	15.5
Incr Delay (d2), s/veh	63.3	0.5	0.3	8.0	5.2	0.0	15.8	0.0	0.1	47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.1	1.4	0.5	7.4	0.1	4.3	0.0	0.3	0.1	0.0	0.0
LnGrp Delay(d),s/veh	94.9	21.1	18.9	38.5	26.7	16.4	42.5	0.0	10.6	79.4	15.6	15.5
LnGrp LOS	F	C	B	D	C	B	D		B	E	B	B
Approach Vol, veh/h		884			1264			221			6	
Approach Delay, s/veh		21.0			26.9			38.2			36.8	
Approach LOS		C			C			D			D	

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	4.7	31.7	6.1	20.9	12.9	23.5	4.6	22.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	23.5	5.0	18.5	9.5	19.0	5.0	18.5
Max Q Clear Time (g_c+I1), s	2.1	2.7	2.8	10.6	8.6	2.1	2.0	16.6
Green Ext Time (p_c), s	0.0	0.1	0.0	3.1	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Intersection

Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⬐	↗		⬌		↰	⬏			⬌	
Traffic Vol, veh/h	11	87	32	18	86	28	45	145	19	10	66	21
Future Vol, veh/h	11	87	32	18	86	28	45	145	19	10	66	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	95	35	20	93	30	49	158	21	11	72	23
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	9.2		10.1		9.8		9.6	
HCM LOS	A		B		A		A	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	11%	0%	14%	10%
Vol Thru, %	0%	88%	89%	0%	65%	68%
Vol Right, %	0%	12%	0%	100%	21%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	164	98	32	132	97
LT Vol	45	0	11	0	18	10
Through Vol	0	145	87	0	86	66
RT Vol	0	19	0	32	28	21
Lane Flow Rate	49	178	107	35	143	105
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.08	0.264	0.167	0.047	0.219	0.161
Departure Headway (Hd)	5.91	5.325	5.637	4.874	5.499	5.491
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	670	632	728	649	648
Service Time	3.679	3.093	3.41	2.647	3.573	3.57
HCM Lane V/C Ratio	0.081	0.266	0.169	0.048	0.22	0.162
HCM Control Delay	9.2	10	9.6	7.9	10.1	9.6
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.3	1.1	0.6	0.1	0.8	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	⤻ᵀ	↑↑	⌐	⤻ᵀ	↑↑	⌐	⤻ᵀ	↑↑	⌐	⤻ᵀ	↑↑	⌐
Traffic Volume (veh/h)	414	304	75	48	392	842	102	933	11	511	560	199
Future Volume (veh/h)	414	304	75	48	392	842	102	933	11	511	560	199
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	450	330	82	52	426	915	111	1014	12	555	609	216
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	900	480	126	588	562	168	1255	619	650	1750	980
Arrive On Green	0.12	0.25	0.25	0.04	0.17	0.17	0.05	0.35	0.35	0.19	0.49	0.49
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	450	330	82	52	426	915	111	1014	12	555	609	216
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.5	8.3	4.1	1.6	12.4	18.0	3.4	28.1	0.5	16.9	11.4	6.5
Cycle Q Clear(g_c), s	13.5	8.3	4.1	1.6	12.4	18.0	3.4	28.1	0.5	16.9	11.4	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	900	480	126	588	562	168	1255	619	650	1750	980
V/C Ratio(X)	1.05	0.37	0.17	0.41	0.72	1.63	0.66	0.81	0.02	0.85	0.35	0.22
Avail Cap(c_a), veh/h	429	900	480	159	588	562	219	1255	619	969	1750	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	33.2	27.8	51.1	42.8	35.0	50.7	31.6	20.3	42.5	16.7	9.1
Incr Delay (d2), s/veh	57.1	0.3	0.2	2.2	4.4	291.0	4.6	5.7	0.1	5.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	4.1	1.8	0.8	6.4	62.1	1.7	14.6	0.2	8.5	5.6	3.0
LnGrp Delay(d),s/veh	104.5	33.5	27.9	53.2	47.3	325.9	55.3	37.3	20.3	47.5	17.3	9.6
LnGrp LOS	F	C	C	D	D	F	E	D	C	D	B	A
Approach Vol, veh/h		862			1393			1137			1380	
Approach Delay, s/veh		70.0			230.5			38.9			28.2	
Approach LOS		E			F			D			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	25.0	42.9	8.5	32.0	9.8	58.1	18.0	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	30.0	5.0	26.5	6.9	53.6	13.5	18.0
Max Q Clear Time (g_c+I1), s	18.9	30.1	3.6	10.3	5.4	13.4	15.5	20.0
Green Ext Time (p_c), s	1.6	0.0	0.0	1.8	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.4
HCM 2010 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↱	↱	↑↑	↱	↱	↑↑
Traffic Volume (veh/h)	33	186	908	12	89	576
Future Volume (veh/h)	33	186	908	12	89	576
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	36	202	987	13	97	626
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	256	229	1690	756	138	2320
Arrive On Green	0.14	0.14	0.48	0.48	0.08	0.66
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	36	202	987	13	97	626
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	0.8	5.6	9.1	0.2	2.4	3.3
Cycle Q Clear(g_c), s	0.8	5.6	9.1	0.2	2.4	3.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	256	229	1690	756	138	2320
V/C Ratio(X)	0.14	0.88	0.58	0.02	0.70	0.27
Avail Cap(c_a), veh/h	256	229	1690	756	217	2320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	18.9	8.5	6.2	20.2	3.2
Incr Delay (d2), s/veh	0.2	30.7	1.5	0.0	6.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.4	4.7	0.1	1.4	1.7
LnGrp Delay(d),s/veh	17.1	49.6	10.0	6.2	26.5	3.5
LnGrp LOS	B	D	B	A	C	A
Approach Vol, veh/h	238		1000			723
Approach Delay, s/veh	44.7		10.0			6.6
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.0	26.0				34.0		11.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.5	19.5				29.5		6.5
Max Q Clear Time (g_c+I1), s	4.4	11.1				5.3		7.6
Green Ext Time (p_c), s	0.0	3.8				3.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱	↟↟↟	↗	↰	↟↟↟	↗	↰	↰	↱		↰	↟	↗
Traffic Volume (veh/h)	1	723	89	23	1135	7	176	3	35	2	3	1
Future Volume (veh/h)	1	723	89	23	1135	7	176	3	35	2	3	1
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	1	786	97	25	1234	8	191	3	38	2	3	1
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	1300	405	50	1436	447	235	50	637	5	559	475
Arrive On Green	0.00	0.26	0.26	0.03	0.28	0.28	0.13	0.43	0.43	0.00	0.30	0.30
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	117	1484	1774	1863	1583
Grp Volume(v), veh/h	1	786	97	25	1234	8	191	0	41	2	3	1
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1601	1774	1863	1583
Q Serve(g_s), s	0.0	8.6	3.1	0.9	14.6	0.2	6.6	0.0	1.0	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	8.6	3.1	0.9	14.6	0.2	6.6	0.0	1.0	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	3	1300	405	50	1436	447	235	0	687	5	559	475
V/C Ratio(X)	0.36	0.60	0.24	0.50	0.86	0.02	0.81	0.00	0.06	0.41	0.01	0.00
Avail Cap(c_a), veh/h	140	1485	462	140	1485	462	266	0	687	140	559	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	20.8	18.7	30.3	21.5	16.4	26.7	0.0	10.6	31.5	15.5	15.5
Incr Delay (d2), s/veh	63.3	0.6	0.3	7.6	5.2	0.0	15.8	0.0	0.2	47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.1	1.4	0.5	7.4	0.1	4.3	0.0	0.5	0.1	0.0	0.0
LnGrp Delay(d),s/veh	94.9	21.3	19.0	37.9	26.7	16.4	42.5	0.0	10.7	79.4	15.6	15.5
LnGrp LOS	F	C	B	D	C	B	D		B	E	B	B
Approach Vol, veh/h		884			1267			232			6	
Approach Delay, s/veh		21.1			26.9			36.9			36.8	
Approach LOS		C			C			D			D	

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	4.7	31.7	6.3	20.7	12.9	23.5	4.6	22.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	23.5	5.0	18.5	9.5	19.0	5.0	18.5
Max Q Clear Time (g_c+I1), s	2.1	3.0	2.9	10.6	8.6	2.1	2.0	16.6
Green Ext Time (p_c), s	0.0	0.1	0.0	3.1	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		⬦		↰	⬦			⬦	
Traffic Vol, veh/h	21	108	42	18	93	28	49	145	19	10	66	24
Future Vol, veh/h	21	108	42	18	93	28	49	145	19	10	66	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	117	46	20	101	30	53	158	21	11	72	26
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	9.6		10.4		10.1		9.9	
HCM LOS	A		B		B		A	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	16%	0%	13%	10%
Vol Thru, %	0%	88%	84%	0%	67%	66%
Vol Right, %	0%	12%	0%	100%	20%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	164	129	42	139	100
LT Vol	49	0	21	0	18	10
Through Vol	0	145	108	0	93	66
RT Vol	0	19	0	42	28	24
Lane Flow Rate	53	178	140	46	151	109
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.09	0.271	0.222	0.062	0.235	0.17
Departure Headway (Hd)	6.06	5.474	5.708	4.919	5.602	5.634
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	586	651	623	719	635	629
Service Time	3.846	3.259	3.497	2.707	3.694	3.733
HCM Lane V/C Ratio	0.09	0.273	0.225	0.064	0.238	0.173
HCM Control Delay	9.5	10.3	10.1	8	10.4	9.9
HCM Lane LOS	A	B	B	A	B	A
HCM 95th-tile Q	0.3	1.1	0.8	0.2	0.9	0.6

Intersection

Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↰	↑	⋎	
Traffic Vol, veh/h	95	7	14	152	20	41
Future Vol, veh/h	95	7	14	152	20	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	8	15	165	22	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	298	103
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	195	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	693	952
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	686	952
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	845	-	-	1479	-
HCM Lane V/C Ratio	0.078	-	-	0.01	-
HCM Control Delay (s)	9.6	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	⅄		↑↑↱		↱	↑↑
Traffic Volume (veh/h)	31	10	898	10	3	607
Future Volume (veh/h)	31	10	898	10	3	607
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	34	11	976	11	3	660
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	69	22	1557	18	7	2150
Arrive On Green	0.05	0.05	0.43	0.43	0.00	0.61
Sat Flow, veh/h	1276	413	3678	40	1774	3632
Grp Volume(v), veh/h	46	0	482	505	3	660
Grp Sat Flow(s),veh/h/ln	1726	0	1770	1856	1774	1770
Q Serve(g_s), s	0.7	0.0	5.6	5.6	0.0	2.4
Cycle Q Clear(g_c), s	0.7	0.0	5.6	5.6	0.0	2.4
Prop In Lane	0.74	0.24		0.02	1.00	
Lane Grp Cap(c), veh/h	93	0	769	806	7	2150
V/C Ratio(X)	0.49	0.00	0.63	0.63	0.41	0.31
Avail Cap(c_a), veh/h	1168	0	1197	1255	333	2394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.0	5.8	5.8	13.2	2.5
Incr Delay (d2), s/veh	4.0	0.0	0.8	0.8	32.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.9	3.0	0.1	1.1
LnGrp Delay(d),s/veh	16.2	0.0	6.7	6.7	46.2	2.6
LnGrp LOS	B		A	A	D	A
Approach Vol, veh/h	46		987			663
Approach Delay, s/veh	16.2		6.7			2.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.6	16.1				20.7		5.9
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.0	18.0				18.0		18.0
Max Q Clear Time (g_c+I1), s	2.0	7.6				4.4		2.7
Green Ext Time (p_c), s	0.0	3.9				3.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	516	158	53	396	613	177	804	31	829	1502	579
Future Volume (veh/h)	398	516	158	53	396	613	177	804	31	829	1502	579
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	433	561	172	58	430	666	192	874	34	901	1633	629
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	938	522	130	579	687	222	933	477	929	1660	963
Arrive On Green	0.14	0.26	0.26	0.04	0.16	0.16	0.06	0.26	0.26	0.27	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	433	561	172	58	430	666	192	874	34	901	1633	629
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.6	15.2	1.1	1.8	12.7	18.0	6.1	26.6	1.7	28.5	50.0	13.1
Cycle Q Clear(g_c), s	13.6	15.2	1.1	1.8	12.7	18.0	6.1	26.6	1.7	28.5	50.0	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	938	522	130	579	687	222	933	477	929	1660	963
V/C Ratio(X)	0.90	0.60	0.33	0.45	0.74	0.97	0.86	0.94	0.07	0.97	0.98	0.65
Avail Cap(c_a), veh/h	479	938	522	166	579	687	222	933	477	929	1660	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	35.3	16.4	51.8	43.8	14.6	51.0	39.6	27.4	39.7	28.8	14.0
Incr Delay (d2), s/veh	20.5	1.1	0.4	2.4	5.1	27.0	27.9	17.6	0.3	22.3	18.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	7.5	3.0	0.9	6.6	21.9	3.7	15.3	0.8	16.4	28.5	10.9
LnGrp Delay(d),s/veh	67.1	36.4	16.8	54.2	48.9	41.5	78.9	57.2	27.7	62.0	47.3	17.5
LnGrp LOS	E	D	B	D	D	D	E	E	C	E	D	B
Approach Vol, veh/h		1166			1154			1100			3163	
Approach Delay, s/veh		44.9			44.9			60.1			45.6	
Approach LOS		D			D			E			D	

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	34.2	33.5	8.7	33.6	11.6	56.1	19.8	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.7	29.0	5.3	28.0	7.1	51.6	15.3	18.0
Max Q Clear Time (g_c+I1), s	30.5	28.6	3.8	17.2	8.1	52.0	15.6	20.0
Green Ext Time (p_c), s	0.0	0.2	0.0	2.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	56	150	870	38	295	1423
Future Volume (veh/h)	56	150	870	38	295	1423
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	61	163	946	41	321	1547
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	158	1557	696	381	2606
Arrive On Green	0.10	0.10	0.44	0.44	0.21	0.74
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	61	163	946	41	321	1547
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	1.8	5.5	11.2	0.8	9.5	11.3
Cycle Q Clear(g_c), s	1.8	5.5	11.2	0.8	9.5	11.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	177	158	1557	696	381	2606
V/C Ratio(X)	0.34	1.03	0.61	0.06	0.84	0.59
Avail Cap(c_a), veh/h	177	158	1557	696	500	2606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	24.7	11.8	8.9	20.7	3.4
Incr Delay (d2), s/veh	1.1	79.5	1.8	0.2	9.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.3	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.9	5.8	0.4	5.7	5.5
LnGrp Delay(d),s/veh	24.2	104.6	13.5	9.0	30.5	4.4
LnGrp LOS	C	F	B	A	C	A
Approach Vol, veh/h		224		987		1868
Approach Delay, s/veh		82.7		13.4		8.9
Approach LOS		F		B		A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.3	28.7				45.0		10.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	15.5	20.5				40.5		5.5
Max Q Clear Time (g_c+I1), s	11.5	13.2				13.3		7.5
Green Ext Time (p_c), s	0.4	3.3				12.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱	↱		↰	↑	↱
Traffic Volume (veh/h)	4	1195	134	41	834	1	145	3	41	3	9	5
Future Volume (veh/h)	4	1195	134	41	834	1	145	3	41	3	9	5
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	1299	146	45	907	1	158	3	45	3	10	5
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	1469	457	75	1658	516	197	39	589	7	533	453
Arrive On Green	0.01	0.29	0.29	0.04	0.33	0.33	0.11	0.39	0.39	0.00	0.29	0.29
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	100	1498	1774	1863	1583
Grp Volume(v), veh/h	4	1299	146	45	907	1	158	0	48	3	10	5
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1598	1774	1863	1583
Q Serve(g_s), s	0.1	16.2	4.8	1.7	9.7	0.0	5.8	0.0	1.2	0.1	0.3	0.2
Cycle Q Clear(g_c), s	0.1	16.2	4.8	1.7	9.7	0.0	5.8	0.0	1.2	0.1	0.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	10	1469	457	75	1658	516	197	0	629	7	533	453
V/C Ratio(X)	0.42	0.88	0.32	0.60	0.55	0.00	0.80	0.00	0.08	0.42	0.02	0.01
Avail Cap(c_a), veh/h	134	1494	465	134	1658	516	227	0	629	134	533	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	22.5	18.5	31.2	18.3	15.1	28.8	0.0	12.6	33.0	17.0	17.0
Incr Delay (d2), s/veh	27.0	6.6	0.4	7.4	0.4	0.0	16.3	0.0	0.2	34.2	0.1	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	0.1	8.5	2.1	1.0	4.6	0.0	3.7	0.0	0.6	0.1	0.1	0.1
LnGrp Delay(d),s/veh	59.9	29.1	18.9	38.6	18.7	15.1	45.1	0.0	12.8	67.2	17.1	17.0
LnGrp LOS	E	C	B	D	B	B	D		B	E	B	B
Approach Vol, veh/h		1449			953			206			18	
Approach Delay, s/veh		28.2			19.7			37.6			25.4	
Approach LOS		C			B			D			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	4.8	30.6	7.3	23.7	11.9	23.5	4.9	26.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	5.0	19.5	8.5	19.0	5.0	19.5
Max Q Clear Time (g_c+I1), s	2.1	3.2	3.7	18.2	7.8	2.3	2.1	11.7
Green Ext Time (p_c), s	0.0	0.1	0.0	1.0	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↤	↗		⬥		↰	↱			⬥	
Traffic Vol, veh/h	16	141	71	6	113	25	39	152	6	27	145	16
Future Vol, veh/h	16	141	71	6	113	25	39	152	6	27	145	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	153	77	7	123	27	42	165	7	29	158	17
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	10.5		11.4		10.9		12.3	
HCM LOS	B		B		B		B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	10%	0%	4%	14%
Vol Thru, %	0%	96%	90%	0%	78%	77%
Vol Right, %	0%	4%	0%	100%	17%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	158	157	71	144	188
LT Vol	39	0	16	0	6	27
Through Vol	0	152	141	0	113	145
RT Vol	0	6	0	71	25	16
Lane Flow Rate	42	172	171	77	157	204
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.077	0.287	0.289	0.114	0.266	0.344
Departure Headway (Hd)	6.546	6.012	6.101	5.34	6.125	6.067
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	547	598	589	671	585	593
Service Time	4.286	3.752	3.84	3.078	4.167	4.107
HCM Lane V/C Ratio	0.077	0.288	0.29	0.115	0.268	0.344
HCM Control Delay	9.8	11.2	11.3	8.8	11.4	12.3
HCM Lane LOS	A	B	B	A	B	B
HCM 95th-tile Q	0.2	1.2	1.2	0.4	1.1	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	⬈⬈	⬆⬆	⬊	⬈⬈	⬆⬆	⬊	⬈⬈	⬆⬆	⬊	⬈⬈	⬆⬆	⬊
Traffic Volume (veh/h)	398	516	175	53	396	613	187	814	31	829	1519	579
Future Volume (veh/h)	398	516	175	53	396	613	187	814	31	829	1519	579
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	433	561	190	58	430	666	203	885	34	901	1651	629
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	938	522	130	579	687	222	933	477	929	1660	963
Arrive On Green	0.14	0.26	0.26	0.04	0.16	0.16	0.06	0.26	0.26	0.27	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	433	561	190	58	430	666	203	885	34	901	1651	629
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	13.6	15.2	1.7	1.8	12.7	18.0	6.4	27.0	1.7	28.5	51.1	13.1
Cycle Q Clear(g_c), s	13.6	15.2	1.7	1.8	12.7	18.0	6.4	27.0	1.7	28.5	51.1	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	938	522	130	579	687	222	933	477	929	1660	963
V/C Ratio(X)	0.90	0.60	0.36	0.45	0.74	0.97	0.91	0.95	0.07	0.97	0.99	0.65
Avail Cap(c_a), veh/h	479	938	522	166	579	687	222	933	477	929	1660	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	35.3	17.0	51.8	43.8	14.6	51.1	39.8	27.4	39.7	29.1	14.0
Incr Delay (d2), s/veh	20.5	1.1	0.4	2.4	5.1	27.0	37.7	19.4	0.3	22.3	20.8	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	7.5	4.2	0.9	6.6	21.9	4.2	15.7	0.8	16.4	29.6	10.9
LnGrp Delay(d),s/veh	67.1	36.4	17.4	54.2	48.9	41.5	88.8	59.1	27.7	62.0	49.9	17.5
LnGrp LOS	E	D	B	D	D	D	F	E	C	E	D	B
Approach Vol, veh/h		1184			1154			1122			3181	
Approach Delay, s/veh		44.6			44.9			63.5			46.9	
Approach LOS		D			D			E			D	

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	34.2	33.5	8.7	33.6	11.6	56.1	19.8	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.7	29.0	5.3	28.0	7.1	51.6	15.3	18.0
Max Q Clear Time (g_c+I1), s	30.5	29.0	3.8	17.2	8.4	53.1	15.6	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.0
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↱	↱	↑↑	↱	↱	↑↑
Traffic Volume (veh/h)	56	163	877	38	318	1434
Future Volume (veh/h)	56	163	877	38	318	1434
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	61	177	953	41	346	1559
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	158	1509	675	405	2606
Arrive On Green	0.10	0.10	0.43	0.43	0.23	0.74
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	61	177	953	41	346	1559
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	1.8	5.5	11.6	0.8	10.3	11.4
Cycle Q Clear(g_c), s	1.8	5.5	11.6	0.8	10.3	11.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	177	158	1509	675	405	2606
V/C Ratio(X)	0.34	1.12	0.63	0.06	0.85	0.60
Avail Cap(c_a), veh/h	177	158	1509	675	500	2606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	24.7	12.4	9.3	20.3	3.4
Incr Delay (d2), s/veh	1.1	106.7	2.0	0.2	11.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.1	6.0	0.4	6.3	5.8
LnGrp Delay(d),s/veh	24.2	131.4	14.4	9.5	31.8	4.4
LnGrp LOS	C	F	B	A	C	A
Approach Vol, veh/h	238		994		1905	
Approach Delay, s/veh	103.9		14.2		9.4	
Approach LOS	F		B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.1	27.9				45.0		10.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	15.5	20.5				40.5		5.5
Max Q Clear Time (g_c+I1), s	12.3	13.6				13.4		7.5
Green Ext Time (p_c), s	0.3	3.2				12.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	⬏	⬆⬆⬆	⬈	⬏	⬆⬆⬆	⬈	⬏	⬆	⬆	⬏	⬆	⬈
Traffic Volume (veh/h)	4	1195	134	53	834	1	145	3	48	3	9	5
Future Volume (veh/h)	4	1195	134	53	834	1	145	3	48	3	9	5
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	1299	146	58	907	1	158	3	52	3	10	5
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1460	455	87	1683	524	197	34	590	7	529	449
Arrive On Green	0.01	0.29	0.29	0.05	0.33	0.33	0.11	0.39	0.39	0.00	0.28	0.28
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	87	1509	1774	1863	1583
Grp Volume(v), veh/h	4	1299	146	58	907	1	158	0	55	3	10	5
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1596	1774	1863	1583
Q Serve(g_s), s	0.2	16.4	4.8	2.2	9.7	0.0	5.8	0.0	1.5	0.1	0.3	0.2
Cycle Q Clear(g_c), s	0.2	16.4	4.8	2.2	9.7	0.0	5.8	0.0	1.5	0.1	0.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		1.00
Lane Grp Cap(c), veh/h	9	1460	455	87	1683	524	197	0	624	7	529	449
V/C Ratio(X)	0.42	0.89	0.32	0.66	0.54	0.00	0.80	0.00	0.09	0.42	0.02	0.01
Avail Cap(c_a), veh/h	132	1481	461	132	1683	524	225	0	624	132	529	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	22.8	18.7	31.3	18.2	15.0	29.0	0.0	12.9	33.3	17.3	17.2
Incr Delay (d2), s/veh	27.0	7.0	0.4	8.3	0.3	0.0	16.6	0.0	0.3	34.3	0.1	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	0.1	8.5	2.1	1.2	4.6	0.0	3.8	0.0	0.7	0.1	0.1	0.1
LnGrp Delay(d),s/veh	60.2	29.9	19.1	39.6	18.6	15.0	45.7	0.0	13.2	67.5	17.3	17.3
LnGrp LOS	E	C	B	D	B	B	D		B	E	B	B
Approach Vol, veh/h		1449			966			213			18	
Approach Delay, s/veh		28.9			19.8			37.3			25.7	
Approach LOS		C			B			D			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	4.8	30.7	7.8	23.7	11.9	23.5	4.9	26.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	5.0	19.5	8.5	19.0	5.0	19.5
Max Q Clear Time (g_c+I1), s	2.1	3.5	4.2	18.4	7.8	2.3	2.2	11.7
Green Ext Time (p_c), s	0.0	0.2	0.0	0.8	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		⬥		↰	⬥			⬥	
Traffic Vol, veh/h	23	154	78	6	136	25	50	152	6	27	145	28
Future Vol, veh/h	23	154	78	6	136	25	50	152	6	27	145	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	167	85	7	148	27	54	165	7	29	158	30
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	11.3		12.3		11.4		13.1	
HCM LOS	B		B		B		B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	13%	0%	4%	14%
Vol Thru, %	0%	96%	87%	0%	81%	72%
Vol Right, %	0%	4%	0%	100%	15%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	158	177	78	167	200
LT Vol	50	0	23	0	6	27
Through Vol	0	152	154	0	136	145
RT Vol	0	6	0	78	25	28
Lane Flow Rate	54	172	192	85	182	217
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.102	0.298	0.336	0.13	0.318	0.378
Departure Headway (Hd)	6.779	6.244	6.281	5.505	6.314	6.259
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	527	574	571	649	568	574
Service Time	4.537	4.002	4.034	3.258	4.374	4.317
HCM Lane V/C Ratio	0.102	0.3	0.336	0.131	0.32	0.378
HCM Control Delay	10.3	11.7	12.2	9.1	12.3	13.1
HCM Lane LOS	B	B	B	A	B	B
HCM 95th-tile Q	0.3	1.2	1.5	0.4	1.4	1.8

Intersection

Int Delay, s/veh	1.4				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	₩	
Traffic Vol, veh/h	333	23	46	168	13	27
Future Vol, veh/h	333	23	46	168	13	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	362	25	50	183	14	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	387	0	645	362
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1171	-	437	683
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1171	-	418	683
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1171	-
HCM Lane V/C Ratio	0.077	-	-	0.043	-
HCM Control Delay (s)	11.9	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	⍦		↑↑		↰	↑↑
Traffic Volume (veh/h)	20	7	870	35	11	1479
Future Volume (veh/h)	20	7	870	35	11	1479
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	22	8	946	38	12	1608
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	47	17	1511	61	28	2200
Arrive On Green	0.04	0.04	0.44	0.44	0.02	0.62
Sat Flow, veh/h	1223	445	3562	139	1774	3632
Grp Volume(v), veh/h	31	0	483	501	12	1608
Grp Sat Flow(s),veh/h/ln	1723	0	1770	1838	1774	1770
Q Serve(g_s), s	0.5	0.0	5.6	5.6	0.2	8.3
Cycle Q Clear(g_c), s	0.5	0.0	5.6	5.6	0.2	8.3
Prop In Lane	0.71	0.26		0.08	1.00	
Lane Grp Cap(c), veh/h	66	0	771	801	28	2200
V/C Ratio(X)	0.47	0.00	0.63	0.63	0.42	0.73
Avail Cap(c_a), veh/h	1172	0	1203	1250	335	2406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	5.8	5.8	12.9	3.5
Incr Delay (d2), s/veh	5.0	0.0	0.8	0.8	9.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.9	3.0	0.2	4.1
LnGrp Delay(d),s/veh	17.5	0.0	6.6	6.6	22.7	4.5
LnGrp LOS	B		A	A	C	A
Approach Vol, veh/h	31		984			1620
Approach Delay, s/veh	17.5		6.6			4.7
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.9	16.0				21.0		5.5
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.0	18.0				18.0		18.0
Max Q Clear Time (g_c+I1), s	2.2	7.6				10.3		2.5
Green Ext Time (p_c), s	0.0	3.9				5.5		0.0

Intersection Summary

HCM 2010 Ctrl Delay	5.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱↱	↑↑	↱	↱↱	↑↑	↱	↱↱	↑↑	↱	↱↱	↑↑	↱
Traffic Volume (veh/h)	414	537	164	55	412	638	184	836	32	862	1563	602
Future Volume (veh/h)	414	537	164	55	412	638	184	836	32	862	1563	602
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	450	584	178	60	448	693	200	909	35	937	1699	654
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	936	521	131	579	687	222	933	478	929	1660	963
Arrive On Green	0.14	0.26	0.26	0.04	0.16	0.16	0.06	0.26	0.26	0.27	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	450	584	178	60	448	693	200	909	35	937	1699	654
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	14.2	16.0	1.1	1.9	13.3	18.0	6.3	28.0	1.7	29.7	51.6	15.0
Cycle Q Clear(g_c), s	14.2	16.0	1.1	1.9	13.3	18.0	6.3	28.0	1.7	29.7	51.6	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	936	521	131	579	687	222	933	478	929	1660	963
V/C Ratio(X)	0.94	0.62	0.34	0.46	0.77	1.01	0.90	0.97	0.07	1.01	1.02	0.68
Avail Cap(c_a), veh/h	479	936	521	166	579	687	222	933	478	929	1660	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	35.6	16.5	51.8	44.0	15.3	51.1	40.1	27.4	40.1	29.2	14.4
Incr Delay (d2), s/veh	26.8	1.3	0.4	2.5	6.4	36.7	34.8	23.9	0.3	31.6	28.2	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	8.0	3.1	0.9	7.1	24.6	4.1	16.7	0.8	18.1	31.6	11.4
LnGrp Delay(d),s/veh	73.7	36.9	16.9	54.2	50.5	52.0	85.9	64.0	27.7	71.7	57.4	18.2
LnGrp LOS	E	D	B	D	D	F	F	E	C	F	F	B
Approach Vol, veh/h		1212			1201			1144			3290	
Approach Delay, s/veh		47.6			51.6			66.7			53.7	
Approach LOS		D			D			E			D	

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	34.2	33.5	8.7	33.6	11.6	56.1	19.8	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.7	29.0	5.3	28.0	7.1	51.6	15.3	18.0
Max Q Clear Time (g_c+I1), s	31.7	30.0	3.9	18.0	8.3	53.6	16.2	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.4
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	58	156	905	40	307	1480
Future Volume (veh/h)	58	156	905	40	307	1480
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	63	170	984	43	334	1609
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	158	1532	685	393	2606
Arrive On Green	0.10	0.10	0.43	0.43	0.22	0.74
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	63	170	984	43	334	1609
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	1.8	5.5	12.0	0.9	9.9	12.1
Cycle Q Clear(g_c), s	1.8	5.5	12.0	0.9	9.9	12.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	177	158	1532	685	393	2606
V/C Ratio(X)	0.36	1.07	0.64	0.06	0.85	0.62
Avail Cap(c_a), veh/h	177	158	1532	685	500	2606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	24.7	12.3	9.1	20.5	3.5
Incr Delay (d2), s/veh	1.2	92.5	2.1	0.2	10.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.5	6.2	0.4	6.0	6.0
LnGrp Delay(d),s/veh	24.3	117.3	14.3	9.3	31.2	4.6
LnGrp LOS	C	F	B	A	C	A
Approach Vol, veh/h	233		1027			1943
Approach Delay, s/veh	92.1		14.1			9.2
Approach LOS	F		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.7	28.3				45.0		10.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	15.5	20.5				40.5		5.5
Max Q Clear Time (g_c+I1), s	11.9	14.0				14.1		7.5
Green Ext Time (p_c), s	0.3	3.2				12.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱	↑↑↑	↱	↱	↑↑↑	↱	↱	↱	↱	↱	↑	↱
Traffic Volume (veh/h)	4	1243	139	43	868	1	151	3	43	3	9	5
Future Volume (veh/h)	4	1243	139	43	868	1	151	3	43	3	9	5
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	1351	151	47	943	1	164	3	47	3	10	5
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1475	459	77	1669	520	203	38	592	7	528	449
Arrive On Green	0.01	0.29	0.29	0.04	0.33	0.33	0.11	0.39	0.39	0.00	0.28	0.28
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	96	1502	1774	1863	1583
Grp Volume(v), veh/h	4	1351	151	47	943	1	164	0	50	3	10	5
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1598	1774	1863	1583
Q Serve(g_s), s	0.2	17.2	5.0	1.7	10.3	0.0	6.0	0.0	1.3	0.1	0.3	0.2
Cycle Q Clear(g_c), s	0.2	17.2	5.0	1.7	10.3	0.0	6.0	0.0	1.3	0.1	0.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	9	1475	459	77	1669	520	203	0	629	7	528	449
V/C Ratio(X)	0.42	0.92	0.33	0.61	0.57	0.00	0.81	0.00	0.08	0.42	0.02	0.01
Avail Cap(c_a), veh/h	132	1479	461	132	1669	520	225	0	629	132	528	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	23.0	18.7	31.5	18.6	15.1	29.0	0.0	12.7	33.3	17.3	17.3
Incr Delay (d2), s/veh	27.0	9.3	0.4	7.5	0.4	0.0	17.7	0.0	0.2	34.3	0.1	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	0.1	9.3	2.2	1.0	4.9	0.0	4.0	0.0	0.6	0.1	0.1	0.1
LnGrp Delay(d),s/veh	60.2	32.3	19.1	39.0	19.0	15.1	46.6	0.0	13.0	67.6	17.4	17.3
LnGrp LOS	E	C	B	D	B	B	D		B	E	B	B
Approach Vol, veh/h		1506			991			214			18	
Approach Delay, s/veh		31.0			20.0			38.7			25.7	
Approach LOS		C			B			D			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	4.8	30.9	7.4	23.9	12.2	23.5	4.9	26.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	5.0	19.5	8.5	19.0	5.0	19.5
Max Q Clear Time (g_c+I1), s	2.1	3.3	3.7	19.2	8.0	2.3	2.2	12.3
Green Ext Time (p_c), s	0.0	0.2	0.0	0.2	0.0	0.0	0.0	3.2

Intersection Summary

HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↵	↗		⬦		↰	↱			⬦	
Traffic Vol, veh/h	17	147	74	6	118	26	41	158	6	28	151	17
Future Vol, veh/h	17	147	74	6	118	26	41	158	6	28	151	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	160	80	7	128	28	45	172	7	30	164	18
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	10.8		11.7		11.2		12.7	
HCM LOS	B		B		B		B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	10%	0%	4%	14%
Vol Thru, %	0%	96%	90%	0%	79%	77%
Vol Right, %	0%	4%	0%	100%	17%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	164	164	74	150	196
LT Vol	41	0	17	0	6	28
Through Vol	0	158	147	0	118	151
RT Vol	0	6	0	74	26	17
Lane Flow Rate	45	178	178	80	163	213
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.082	0.302	0.306	0.121	0.282	0.364
Departure Headway (Hd)	6.635	6.102	6.186	5.423	6.218	6.155
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	588	581	660	577	584
Service Time	4.381	3.848	3.931	3.169	4.268	4.2
HCM Lane V/C Ratio	0.083	0.303	0.306	0.121	0.282	0.365
HCM Control Delay	10	11.5	11.7	8.9	11.7	12.7
HCM Lane LOS	A	B	B	A	B	B
HCM 95th-tile Q	0.3	1.3	1.3	0.4	1.2	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱↰	↑↑	↱	↱↰	↑↑	↱	↱↰	↑↑	↱	↱↰	↑↑	↱
Traffic Volume (veh/h)	414	537	181	55	412	638	194	846	32	862	1580	602
Future Volume (veh/h)	414	537	181	55	412	638	194	846	32	862	1580	602
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	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	450	584	197	60	448	693	211	920	35	937	1717	654
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	936	521	131	579	687	222	933	478	929	1660	963
Arrive On Green	0.14	0.26	0.26	0.04	0.16	0.16	0.06	0.26	0.26	0.27	0.47	0.47
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	450	584	197	60	448	693	211	920	35	937	1717	654
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	14.2	16.0	2.1	1.9	13.3	18.0	6.7	28.5	1.7	29.7	51.6	15.0
Cycle Q Clear(g_c), s	14.2	16.0	2.1	1.9	13.3	18.0	6.7	28.5	1.7	29.7	51.6	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	936	521	131	579	687	222	933	478	929	1660	963
V/C Ratio(X)	0.94	0.62	0.38	0.46	0.77	1.01	0.95	0.99	0.07	1.01	1.03	0.68
Avail Cap(c_a), veh/h	479	936	521	166	579	687	222	933	478	929	1660	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	35.6	17.3	51.8	44.0	15.3	51.3	40.3	27.4	40.1	29.2	14.4
Incr Delay (d2), s/veh	26.8	1.3	0.5	2.5	6.4	36.7	46.3	26.3	0.3	31.6	31.4	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	8.0	4.4	0.9	7.1	24.6	4.6	17.3	0.8	18.1	32.4	11.4
LnGrp Delay(d),s/veh	73.7	36.9	17.7	54.2	50.5	52.0	97.6	66.6	27.7	71.7	60.6	18.2
LnGrp LOS	E	D	B	D	D	F	F	E	C	F	F	B
Approach Vol, veh/h		1231			1201			1166			3308	
Approach Delay, s/veh		47.3			51.6			71.0			55.4	
Approach LOS		D			D			E			E	

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	34.2	33.5	8.7	33.6	11.6	56.1	19.8	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.7	29.0	5.3	28.0	7.1	51.6	15.3	18.0
Max Q Clear Time (g_c+I1), s	31.7	30.5	3.9	18.0	8.7	53.6	16.2	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	58	169	912	40	330	1491
Future Volume (veh/h)	58	169	912	40	330	1491
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	63	184	991	43	359	1621
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	158	1484	664	417	2606
Arrive On Green	0.10	0.10	0.42	0.42	0.24	0.74
Sat Flow, veh/h	1774	1583	3632	1583	1774	3632
Grp Volume(v), veh/h	63	184	991	43	359	1621
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1774	1770
Q Serve(g_s), s	1.8	5.5	12.4	0.9	10.7	12.3
Cycle Q Clear(g_c), s	1.8	5.5	12.4	0.9	10.7	12.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	177	158	1484	664	417	2606
V/C Ratio(X)	0.36	1.16	0.67	0.06	0.86	0.62
Avail Cap(c_a), veh/h	177	158	1484	664	500	2606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	24.7	12.9	9.5	20.2	3.5
Incr Delay (d2), s/veh	1.2	121.8	2.4	0.2	12.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.8	6.6	0.4	6.6	6.0
LnGrp Delay(d),s/veh	24.3	146.5	15.3	9.7	32.6	4.7
LnGrp LOS	C	F	B	A	C	A
Approach Vol, veh/h	247		1034		1980	
Approach Delay, s/veh	115.3		15.0		9.7	
Approach LOS	F		B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	27.6				45.0		10.0
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	15.5	20.5				40.5		5.5
Max Q Clear Time (g_c+I1), s	12.7	14.4				14.3		7.5
Green Ext Time (p_c), s	0.3	3.1				12.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱	↱	↰	↑	↱
Traffic Volume (veh/h)	4	1243	139	55	868	1	151	3	49	3	9	5
Future Volume (veh/h)	4	1243	139	55	868	1	151	3	49	3	9	5
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	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	1351	151	60	943	1	164	3	53	3	10	5
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1465	456	89	1692	527	203	33	591	7	524	445
Arrive On Green	0.01	0.29	0.29	0.05	0.33	0.33	0.11	0.39	0.39	0.00	0.28	0.28
Sat Flow, veh/h	1774	5085	1583	1774	5085	1583	1774	86	1511	1774	1863	1583
Grp Volume(v), veh/h	4	1351	151	60	943	1	164	0	56	3	10	5
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1774	1695	1583	1774	0	1596	1774	1863	1583
Q Serve(g_s), s	0.2	17.4	5.1	2.2	10.3	0.0	6.1	0.0	1.5	0.1	0.3	0.2
Cycle Q Clear(g_c), s	0.2	17.4	5.1	2.2	10.3	0.0	6.1	0.0	1.5	0.1	0.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		1.00
Lane Grp Cap(c), veh/h	9	1465	456	89	1692	527	203	0	625	7	524	445
V/C Ratio(X)	0.42	0.92	0.33	0.68	0.56	0.00	0.81	0.00	0.09	0.42	0.02	0.01
Avail Cap(c_a), veh/h	131	1467	457	131	1692	527	223	0	625	131	524	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	23.3	18.9	31.6	18.5	15.1	29.2	0.0	13.0	33.6	17.6	17.5
Incr Delay (d2), s/veh	27.0	9.9	0.4	8.7	0.4	0.0	18.0	0.0	0.3	34.3	0.1	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	0.1	9.5	2.2	1.3	4.9	0.0	4.0	0.0	0.7	0.1	0.1	0.1
LnGrp Delay(d),s/veh	60.5	33.2	19.4	40.2	18.9	15.1	47.2	0.0	13.3	67.9	17.6	17.6
LnGrp LOS	E	C	B	D	B	B	D		B	E	B	B
Approach Vol, veh/h		1506			1004			220			18	
Approach Delay, s/veh		31.9			20.2			38.5			26.0	
Approach LOS		C			C			D			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	4.8	31.0	7.9	24.0	12.2	23.5	4.9	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	5.0	19.5	8.5	19.0	5.0	19.5
Max Q Clear Time (g_c+I1), s	2.1	3.5	4.2	19.4	8.1	2.3	2.2	12.3
Green Ext Time (p_c), s	0.0	0.2	0.0	0.1	0.0	0.0	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Intersection

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		⟷		↰	↱			⟷	
Traffic Vol, veh/h	23	160	81	6	141	26	52	158	6	28	151	29
Future Vol, veh/h	23	160	81	6	141	26	52	158	6	28	151	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	174	88	7	153	28	57	172	7	30	164	32
Number of Lanes	0	1	1	0	1	0	1	1	0	0	1	0

Approach	EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB	
Opposing Lanes	1		2		1		2	
Conflicting Approach Left	SB		NB		EB		WB	
Conflicting Lanes Left	1		2		2		1	
Conflicting Approach Right	NB		SB		WB		EB	
Conflicting Lanes Right	2		1		1		2	
HCM Control Delay	11.6		12.7		11.6		13.6	
HCM LOS	B		B		B		B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	13%	0%	3%	13%
Vol Thru, %	0%	96%	87%	0%	82%	73%
Vol Right, %	0%	4%	0%	100%	15%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	164	183	81	173	208
LT Vol	52	0	23	0	6	28
Through Vol	0	158	160	0	141	151
RT Vol	0	6	0	81	26	29
Lane Flow Rate	57	178	199	88	188	226
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.108	0.314	0.352	0.137	0.335	0.399
Departure Headway (Hd)	6.867	6.332	6.363	5.589	6.407	6.346
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	520	565	563	638	558	565
Service Time	4.634	4.099	4.13	3.355	4.479	4.413
HCM Lane V/C Ratio	0.11	0.315	0.353	0.138	0.337	0.4
HCM Control Delay	10.5	12	12.6	9.3	12.7	13.6
HCM Lane LOS	B	B	B	A	B	B
HCM 95th-tile Q	0.4	1.3	1.6	0.5	1.5	1.9

Intersection						
Int Delay, s/veh	1.4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	⤴	⤹	↑	⩔	
Traffic Vol, veh/h	346	23	46	175	13	27
Future Vol, veh/h	346	23	46	175	13	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	376	25	50	190	14	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	401	0	666	376
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1158	-	425	670
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1158	-	407	670
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	554	-	-	1158	-
HCM Lane V/C Ratio	0.078	-	-	0.043	-
HCM Control Delay (s)	12.1	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	꒐		꛱		꒐	꛱
Traffic Volume (veh/h)	20	7	905	35	11	1539
Future Volume (veh/h)	20	7	905	35	11	1539
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	22	8	984	38	12	1673
Adj No. of Lanes	0	0	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	47	17	1542	60	28	2219
Arrive On Green	0.04	0.04	0.44	0.44	0.02	0.63
Sat Flow, veh/h	1223	445	3568	134	1774	3632
Grp Volume(v), veh/h	31	0	501	521	12	1673
Grp Sat Flow(s),veh/h/ln	1723	0	1770	1839	1774	1770
Q Serve(g_s), s	0.5	0.0	5.9	5.9	0.2	9.0
Cycle Q Clear(g_c), s	0.5	0.0	5.9	5.9	0.2	9.0
Prop In Lane	0.71	0.26		0.07	1.00	
Lane Grp Cap(c), veh/h	66	0	785	816	28	2219
V/C Ratio(X)	0.47	0.00	0.64	0.64	0.42	0.75
Avail Cap(c_a), veh/h	1153	0	1184	1231	330	2368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	5.8	5.8	13.1	3.5
Incr Delay (d2), s/veh	5.1	0.0	0.9	0.8	9.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.0	3.1	0.2	4.6
LnGrp Delay(d),s/veh	17.7	0.0	6.7	6.6	22.9	4.9
LnGrp LOS	B		A	A	C	A
Approach Vol, veh/h	31		1022			1685
Approach Delay, s/veh	17.7		6.7			5.0
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.9	16.4				21.4		5.5
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	5.0	18.0				18.0		18.0
Max Q Clear Time (g_c+I1), s	2.2	7.9				11.0		2.5
Green Ext Time (p_c), s	0.0	4.0				5.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	5.8
HCM 2010 LOS	A