TRAFFIC IMPACT STUDY

Proposed Gas Station, Restaurant, and Retail Stores

21419 & 21425 Cajalco Road, Perris

APN# 318-140-007-2, 318-140-028-1, 318-140-029-2

Date: August 12, 2021

Prepared For:

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APN# 318-140-007-2, 318-140-028-1, 318-140-029-2

Prepared under the supervision of

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Lic. # T2285

EXECUTIVE SUMMARY

The project is located on an unimproved land at 21419 & 21425 Cajalco Road in Riverside County. The proposed developments include a fast food restaurant (1,850 sq. ft.) with drive-through lane, gas station with 12 fueling positions, mini mart (3,100 sq. ft.) with a fast food component (1,000 sq. ft.) and a drive-through lane and retail units (4,178 sq. ft.). With pass-by considerations, the project would generate 89 inbound and 85 outbound trips in the AM peak hour, 92 inbound and 88 outbound trips in the PM peak hour, and 2,576 daily trips.

The project will dedicate the right of way along Cajalco Road to its ultimate width of 220 feet as an Expressway. The project plans to contribute a fair share to the future street widening and raised median islands. The project driveway on Cajalco Road will be limited to right-ins and right-outs only that prohibits left-turn ingress and egress. The project will provide another driveway on Clark Street for full access.

The proposed developments should be identified as local-serving retail projects of less than 50,000 square feet, meeting the project type screening criteria. Therefore, the proposed project is presumed to cause a less-than-significant impact and a VMT analysis will not be required.

The study analyzed five intersections in the project vicinity in addition to the two project driveways. The project is required to contribute a fair share of the construction costs for the following mitigation measures:

- Widen the intersection of Cajalco Road and Alexander Street to provide two westbound through lanes.
- Re-stripe the intersection of Cajalco Road and Brown Street to provide two westbound through lanes.

With the above mitigation measures, the project will not result in a significant traffic impact and all study locations will operate at LOS D or better. The estimated fair share

contribution is 14% and 17% of the construction cost for the intersections of Cajalco Road at Alexander Street and Cajalco Road at Brown Street, respectively.

The site plan shows that all vehicle stacking spaces are located off-street. A driveway for stacking leading to a drive-up window has been designed so as not to interfere with the free or orderly circulation of the parking area. Detailed queue analysis should be prepared at the time when actual application is submitted for a specific tenant and business with a finalized layout.

Site plan has shown drive aisles with ample space throughout the site. On-site circulation appears efficient and safe without unnecessary bottlenecks. The likelihood of on-site congestion and traffic queue are very low in general.

INTRODUCTION

The purpose of this study is to evaluate traffic impact of the proposed development at 21419 & 21425 Cajalco Road in Riverside County. Vicinity map is shown in **Exhibit 1**.

Project site is currently vacant and unimproved. The proposed developments include a fast food restaurant (1,850 sq. ft.) with drive-through lane, gas station with 12 fueling positions, mini mart (3,100 sq. ft.) with a fast food component (1,000 sq. ft.) and a drive-through lane, and retail units (4,178 sq. ft.). The proposed site plan is shown in **Exhibit 2**.

The project will dedicate the right of way along Cajalco Road to its ultimate width of 220 feet as Expressway. The project plans to contribute a fair share to the future street widening and raised median islands. The project driveway on Cajalco Road will be limited to right-ins and right-outs only that prohibits left-turn ingress and egress. The project will provide another driveway on Clark Street for full access.

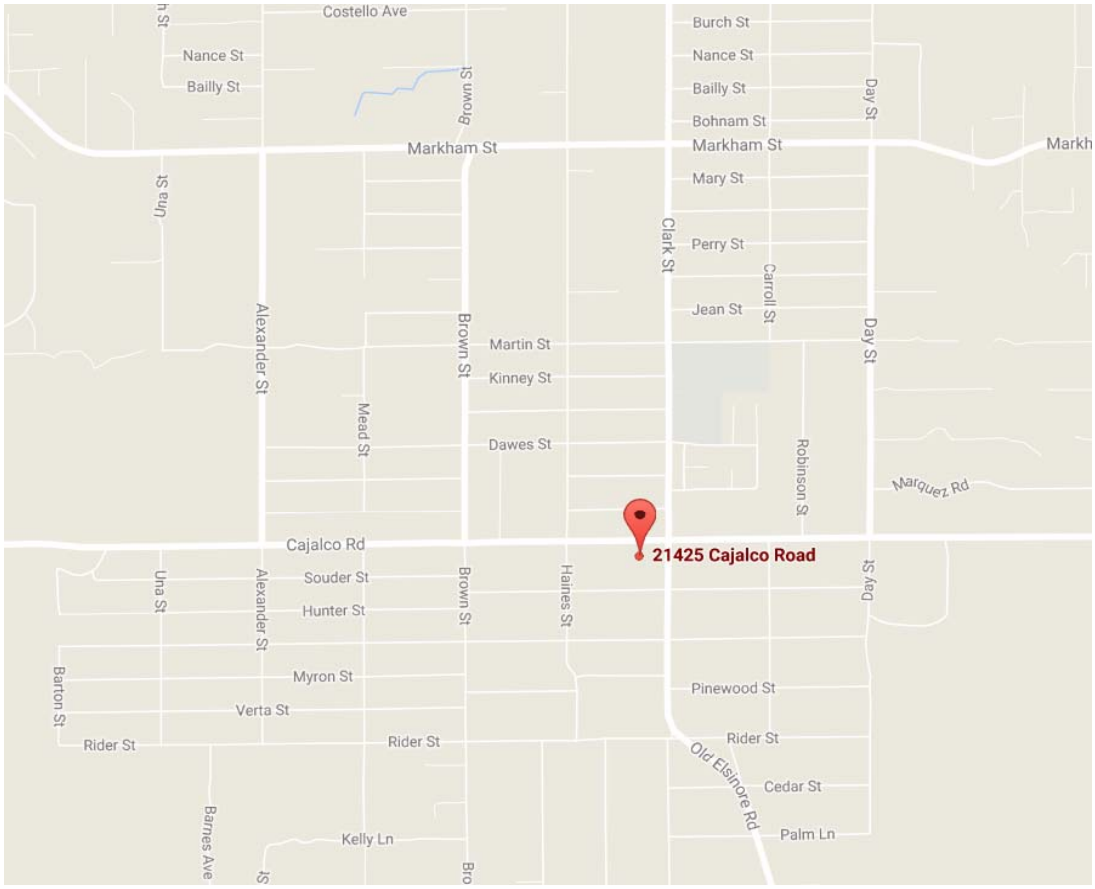
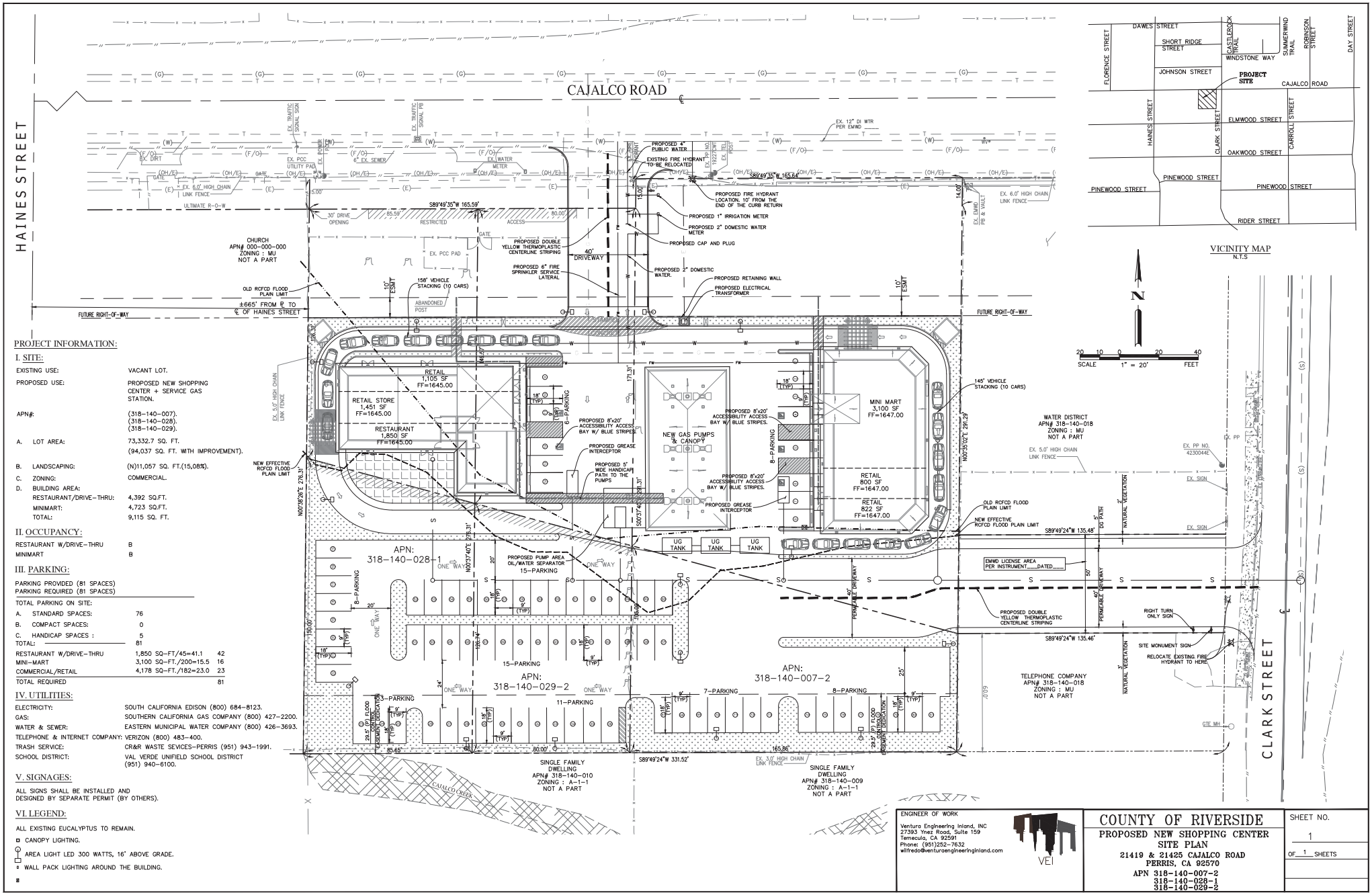


EXHIBIT 1. VICINITY MAP

No Scale



PROJECT INFORMATION:

I. SITE:

EXISTING USE:	VACANT LOT.
PROPOSED USE:	PROPOSED NEW SHOPPING CENTER + SERVICE GAS STATION.
APN#:	(318-140-007). (318-140-028). (318-140-029).
A. LOT AREA:	73,332.7 SQ. FT. (94,037 SQ. FT. WITH IMPROVEMENT).
B. LANDSCAPING:	(N)11,057 SQ. FT.(15.08%).
C. ZONING:	COMMERCIAL.
D. BUILDING AREA:	
RESTAURANT/DRIVE-THRU:	4,392 SQ.FT.
MINIMART:	4,723 SQ.FT.
TOTAL:	9,115 SQ. FT.

II. OCCUPANCY:

RESTAURANT W/DRIVE-THRU	B
MINIMART	B

III. PARKING:

PARKING PROVIDED (81 SPACES)
PARKING REQUIRED (81 SPACES)

TOTAL PARKING ON SITE:

A. STANDARD SPACES:	76	
B. COMPACT SPACES:	0	
C. HANDICAP SPACES :	5	
TOTAL:	81	
RESTAURANT W/DRIVE-THRU	1,850 SQ-FT/45=41.1	42
MINI-MART	3,100 SQ-FT./200=15.5	16
COMMERCIAL/RETAIL	4,178 SQ-FT./182=23.0	23
TOTAL REQUIRED		81

IV. UTILITIES:

ELECTRICITY:	SOUTH CALIFORNIA EDISON (800) 684-8123.
GAS:	SOUTHERN CALIFORNIA GAS COMPANY (800) 427-2200.
WATER & SEWER:	EASTERN MUNICIPAL WATER COMPANY (800) 426-3693.
TELEPHONE & INTERNET COMPANY:	VERIZON (800) 483-400.
TRASH SERVICE:	CR&R WASTE SEVICES-PERRIS (951) 943-1991.
SCHOOL DISTRICT:	VAL VERDE UNIFIELD SCHOOL DISTRICT (951) 940-6100.

V. SIGNAGES:

ALL SIGNS SHALL BE INSTALLED AND DESIGNED BY SEPARATE PERMIT (BY OTHERS).

VI. LEGEND:

ALL EXISTING EUCALYPTUS TO REMAIN.

- CANOPY LIGHTING.
- AREA LIGHT LED 300 WATTS, 16' ABOVE GRADE.
- WALL PACK LIGHTING AROUND THE BUILDING.

ENGINEER OF WORK
Ventura Engineering Inland, INC
27393 Ynez Road, Suite 159
Temecula, CA 92591
Phone: (951)252-7632
wilfredo@venturaengineeringinland.com

VEI

COUNTY OF RIVERSIDE

PROPOSED NEW SHOPPING CENTER SITE PLAN
21419 & 21425 CAJALCO ROAD
PERRIS, CA 92570
APN 318-140-007-2
318-140-028-1
318-140-029-2

SHEET NO. 1 OF 1 SHEETS

EXHIBIT 2. SITE PLAN

STUDY SCENARIOS

In compliance with the "Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled," dated December 2020, established by the Riverside County Transportation Department, the study performed level-of-service analysis using SYNCHRO software and methodologies recommended by Highway Capacity Manual (HCM) to evaluate traffic impacts before and after the project's generated traffic. The following scenarios are included in this analysis:

i. Existing Conditions
ii. Project Completion (Existing + Ambient + Project)
iii. Cumulative (Existing + Ambient + Project + Cumulative)
iv. Cumulative with Mitigation Measures

According to the scoping agreement approved by the County of Riverside as shown in **Appendix A**, the following intersections are included in this study:

1. Cajalco Road at Alexander Street
2. Cajalco Road at Brown Street
3. Cajalco Road at Clark Street
4. Clark Street at Dawes Street
5. Clark Street at Rider Street
6. Cajalco Road at Driveway "A"
7. Clark Street at Driveway "B"

EXISTING CONDITIONS

The site is situated at 21419 & 21425 Cajalco Road, approximately 200 feet west of Clark Street. Project site is currently vacant and unimproved. Cajalco Road is classified as an Expressway by the County of Riverside with an ultimate width of 220 feet right of way. Clark Street is classified as a north south collector. Lane configurations at the study intersection are shown in **Exhibit 3**.

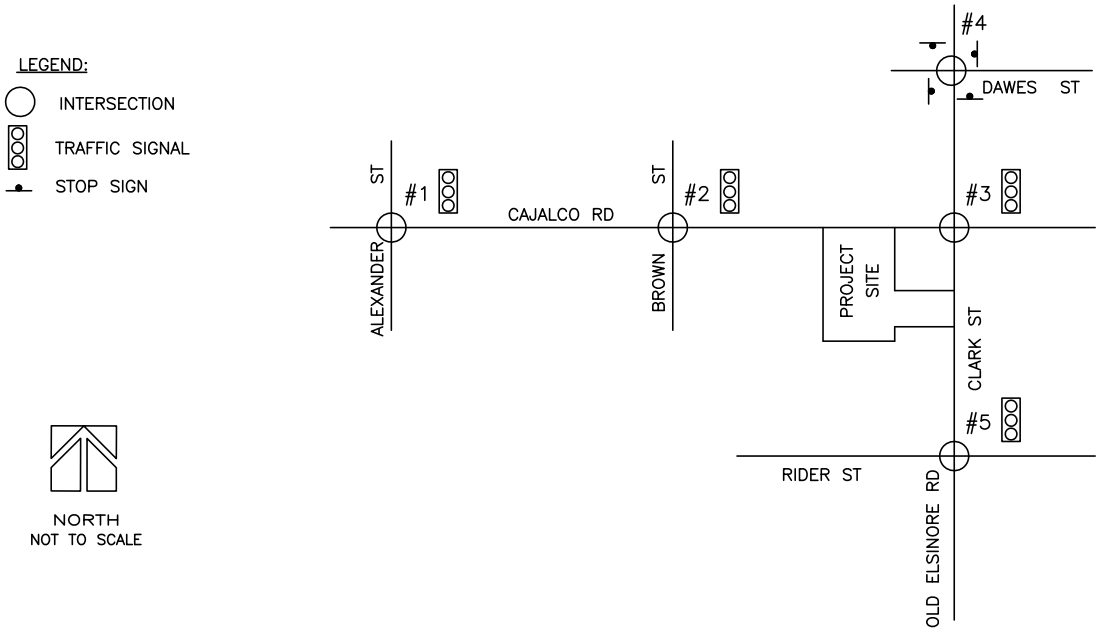
Traffic counts of AM and PM peak hour turning movements were collected on Tuesday, October 10, 2017. Traffic volumes at the study intersections are shown in **Exhibit 4**. Complete traffic data can be found in **Appendix B**.

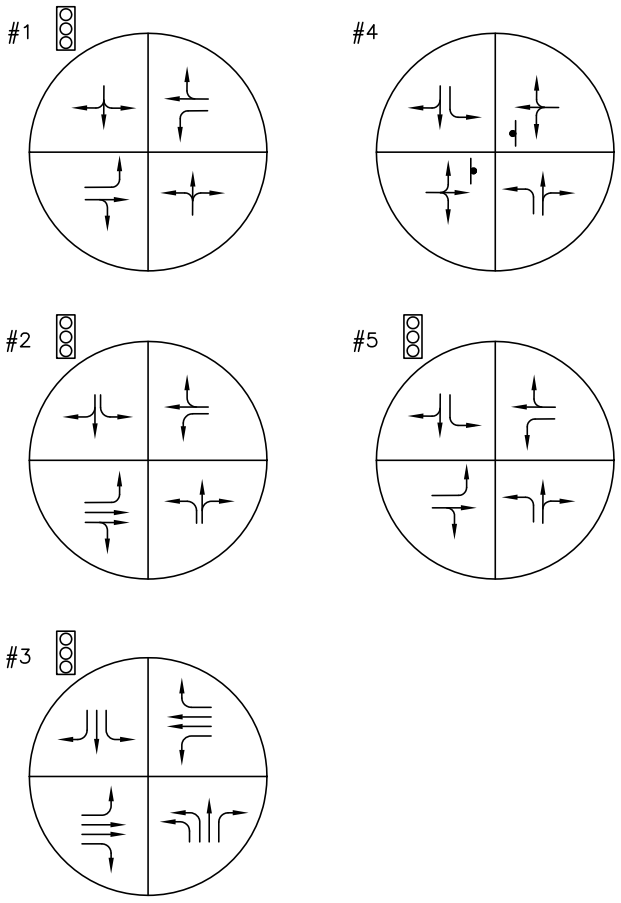
The study intersections currently operate at LOS D or better, as shown in **Table 1**. The analysis worksheets can be found in **Appendix C**.

Table 1. Existing LOS

No.	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay*	LOS	Delay*
1	Cajalco Rd at Alexander St	D	43.5	C	27.8
2	Cajalco Rd at Brown St	C	26.4	D	36.2
3	Cajalco Rd at Clark St	C	26.8	D	46.0
4	Clark St at Dawes St	B	12.8	A	9.1
5	Clark St/Old Elsinore Rd at Rider St	B	18.4	B	16.8

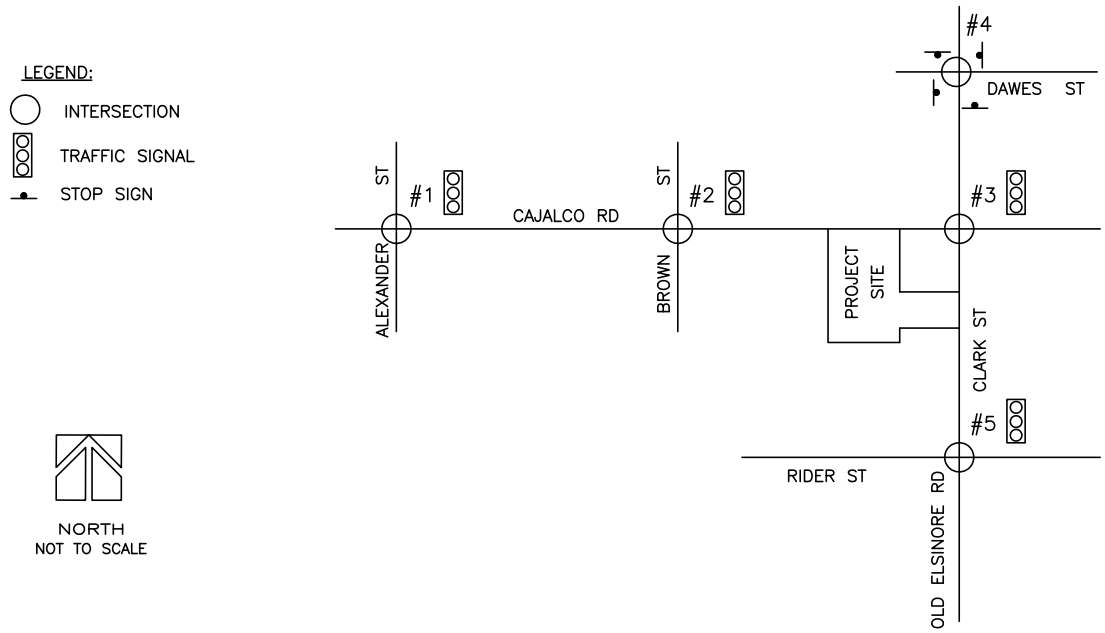
* Average Delay in seconds



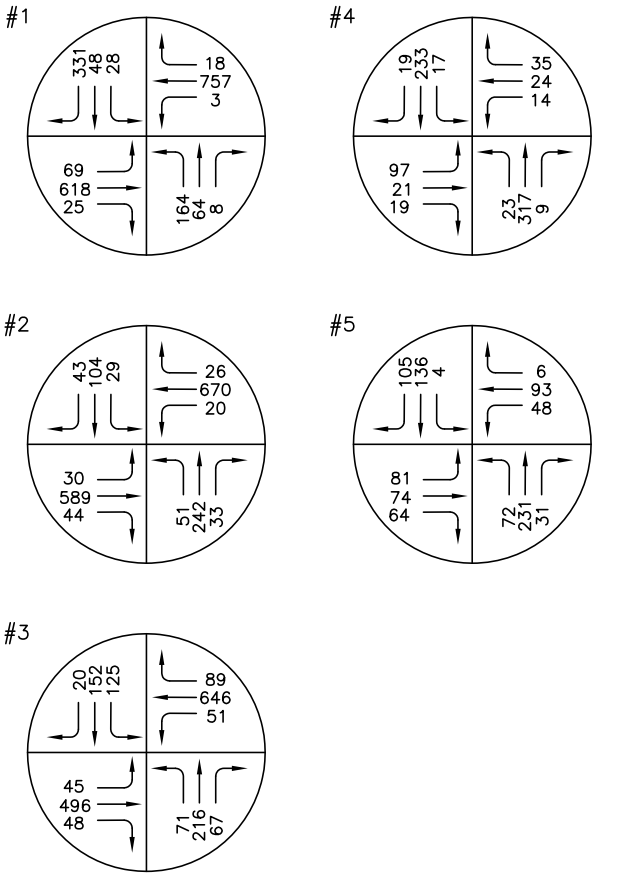


EXISTING LANE CONFIGURATION

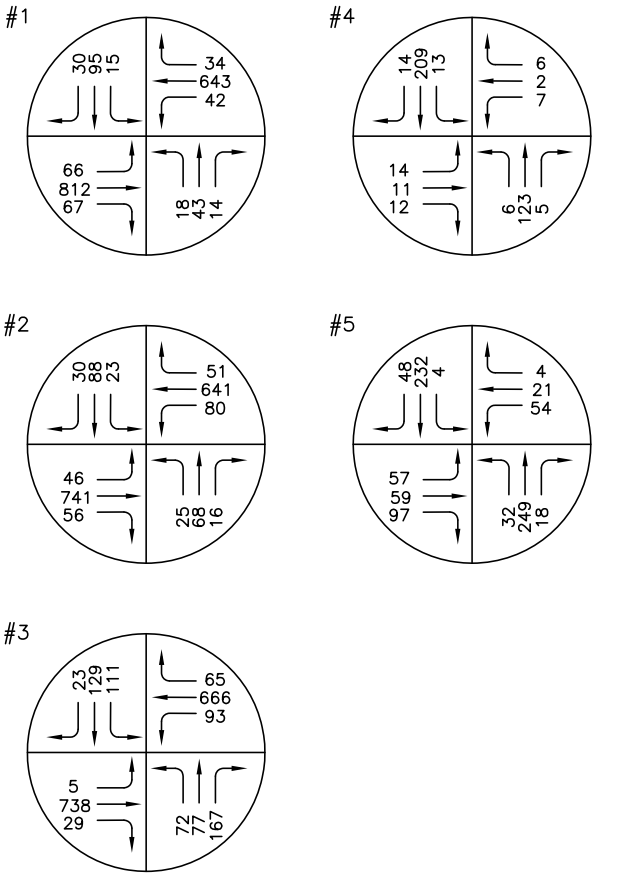
CAJALCO PLAZA



AM PEAK HOUR



PM PEAK HOUR



EXISTING TRAFFIC VOLUMES

CAJALCO PLAZA

K2 TRAFFIC ENGINEERING

EXHIBIT 4

TRIP GENERATION

Passenger vehicle trips are estimated using the rates and methodologies outlined in *"Trip Generation"*, 10th Edition, published by the Institute of Transportation Engineers (ITE). Applicable trip generation rates are shown in **Table 2**.

Table 2. Trip Generation Rate

LAND USE	UNIT	DAILY	AM PEAK HOUR			PM PEAK HOUR		
			Rate	IN	OUT	Rate	IN	OUT
Gas Station with Convenience Store (945)	Veh Fueling Station	205.36	12.47	51%	49%	13.99	51%	49%
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	470.95	40.19	51%	49%	32.67	52%	48%
Shopping Center (820)	1000 Sq. Ft.	37.75	0.94	62%	38%	3.81	48%	52%

Based on the approved scoping agreement, as shown in **Appendix B**, the study applies a 35% pass-by and internal trip reduction. The project would generate 89 inbound and 85 outbound trips in the AM peak hour, 92 inbound and 88 outbound trips in the PM peak hour, and 2,576 daily trips. The projected trips associated with the project are provided in **Table 3**.

Table 3. Project Trip Generation

Land Use	Unit	Quantity	AM Peak			PM Peak			Daily
			Total	In	Out	Total	In	Out	
Gas Station with Convenience Store (945)	Veh. Fueling Station	12	150	77	73	168	86	82	2,464
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	1.850	74	38	36	60	31	29	871
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	1.000	40	20	20	33	17	16	471
Shopping Center (937)	1000 Sq. Ft.	4.178	4	2	2	16	8	8	158
Total			268	137	131	277	142	135	3,964
Pass-By and Internal Trip Reduction		35%	-94	-48	-46	-97	-50	-47	-1,387
Trip Generation			**174**	89	85	**180**	92	88	**2,576**

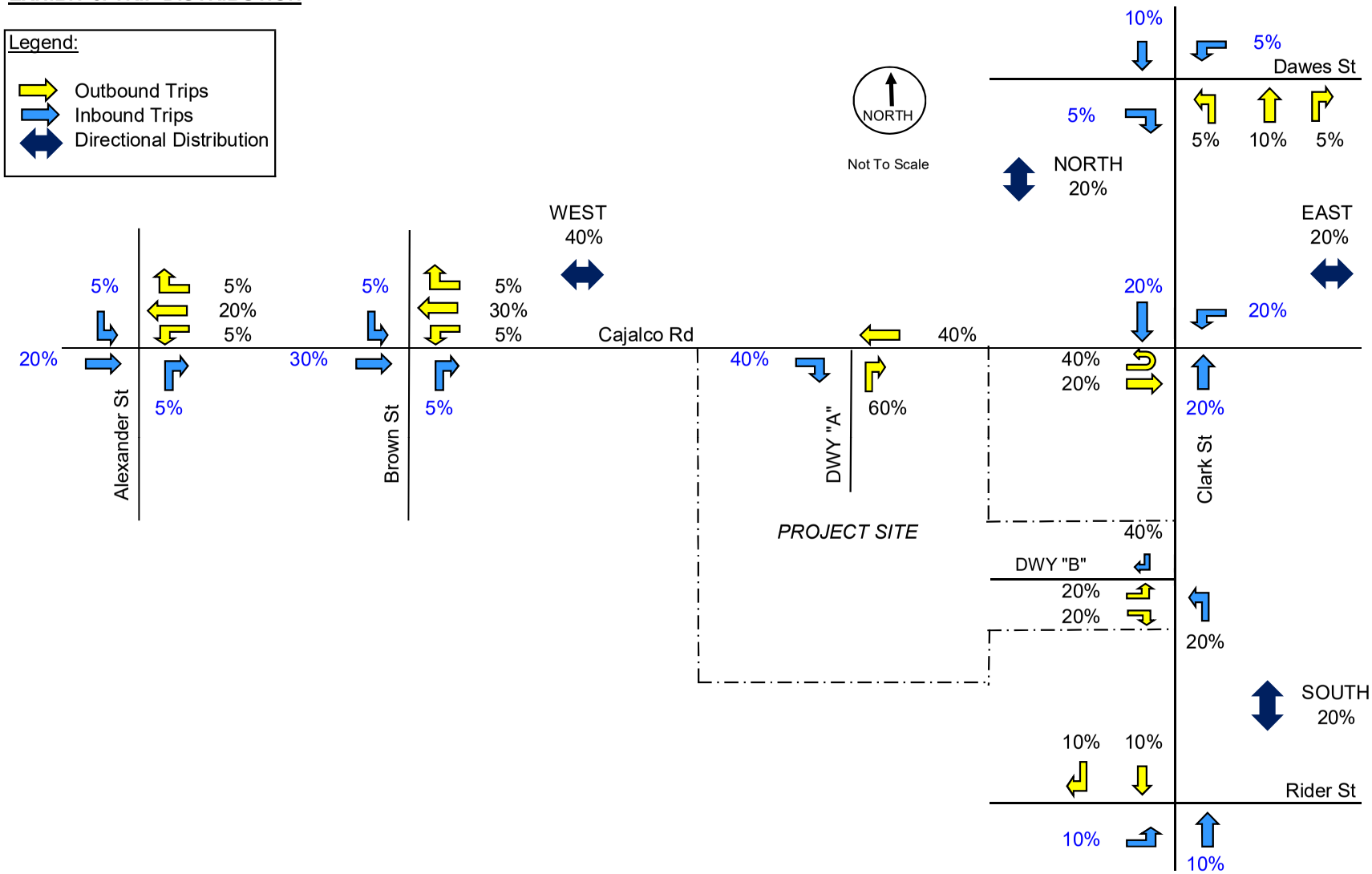
TRIP DISTRIBUTION

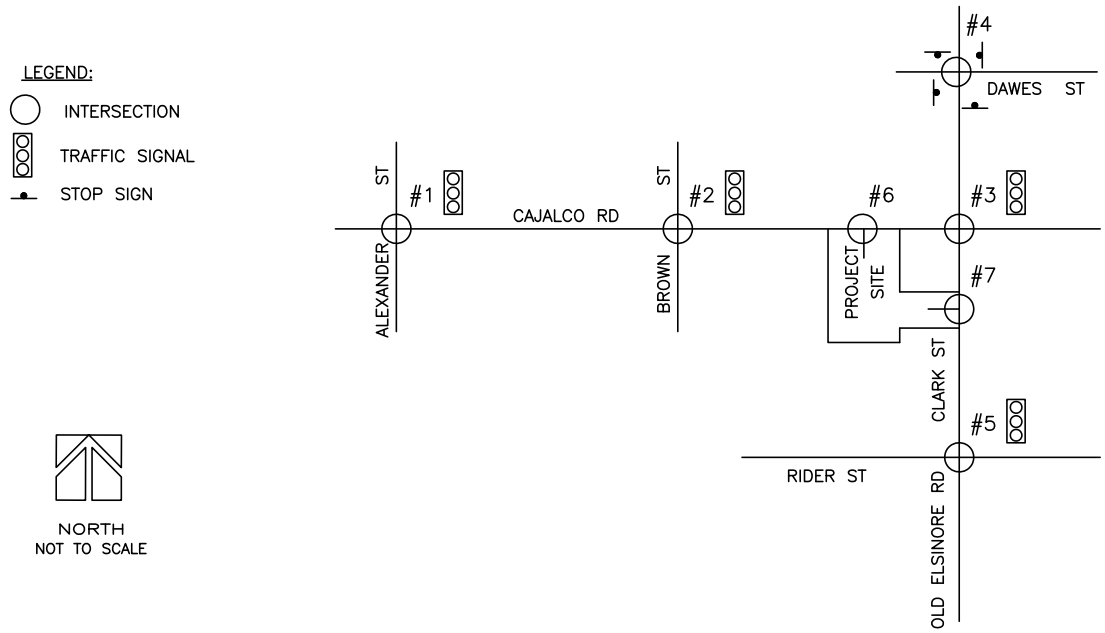
Trip distribution represents the directional orientation of traffic to and from the proposed project. Directional orientation is largely influenced by the geographical location of the site, among many other factors. The trip distribution pattern for the project is illustrated on **Exhibit 5**.

TRAFFIC ASSIGNMENT

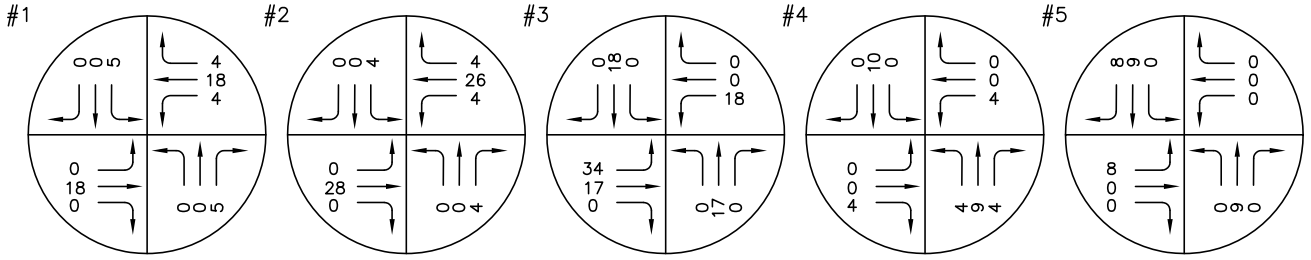
The traffic assignment to and from the site has been based upon the results of trip generation, trip distribution, and access layouts. **Exhibit 6** illustrates the traffic assignment of the proposed project in the AM and PM peak hours.

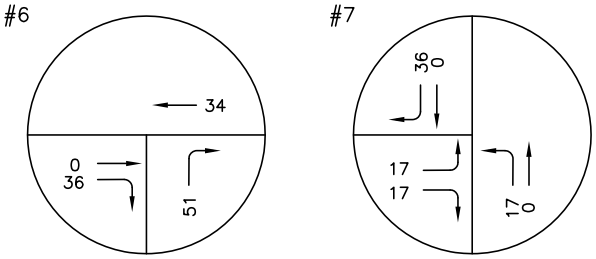
EXHIBIT 5. TRIP DISTRIBUTION



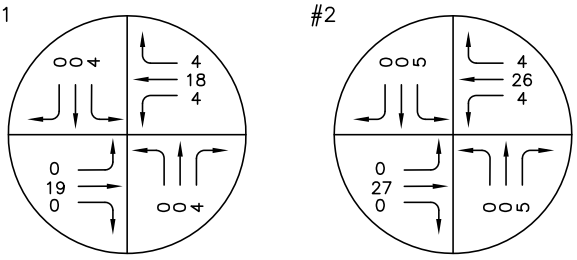


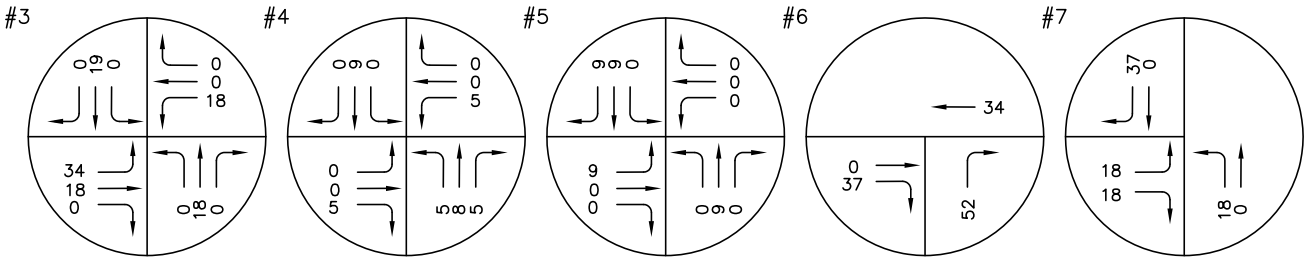
AM PEAK HOUR





PM PEAK HOUR





TRAFFIC ASSIGNMENT

CAJALCO PLAZA

K2 TRAFFIC ENGINEERING

EXHIBIT 6

PROJECT COMPLETION (EXISTING + AMBIENT + PROJECT)

For project opening year 2022, the annual growth rate of two percent (2%) is applied. This factor covers background traffic increases resulting from traffic growth of regional developments. **Exhibit 7** illustrates lane configurations and traffic conditions including project trips at the opening year. **Table 4** shows the level of services and intersection delays at study intersections. Worksheets are shown in **Appendix C**.

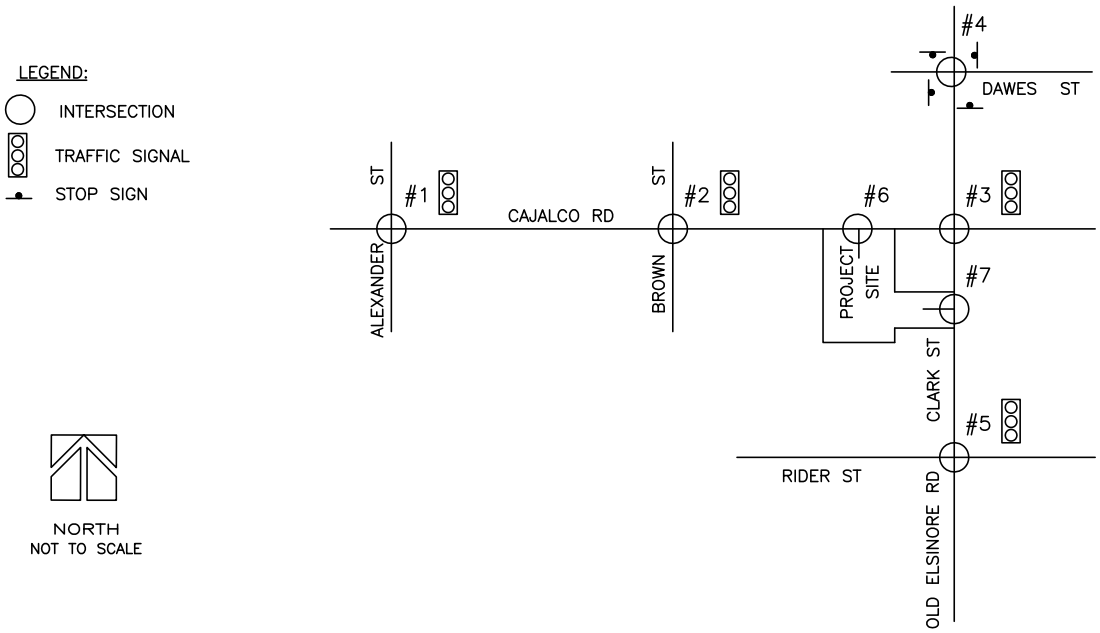
Table 4. Project Completion LOS (Existing + Ambient + Project)

No.	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay*	LOS	Delay*
1	Cajalco Rd at Alexander St	E	70.4	D	44.4
2	Cajalco Rd at Brown St	C	30.8	D	53.8
3	Cajalco Rd at Clark St	C	29.0	D	42.4
4	Clark St at Dawes St	C	15.3	A	9.6
5	Clark St/Old Elsinore Rd at Rider St	B	19.5	B	17.7
6	Cajalco Rd at Driveway “A”	B	14.8	C	18.9
7	Clark St at Driveway “B”	B	13.2	B	12.9

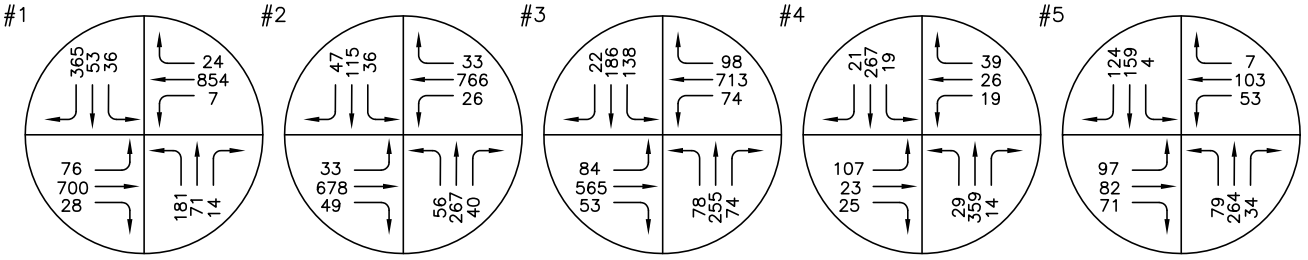
* Average Delay in seconds

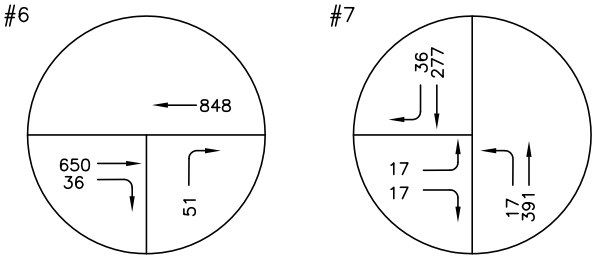
All studied intersections will maintain LOS D or better, except for the following:

- Intersection #1 Cajalco Road at Alexander Street: LOS E during the AM peak hour

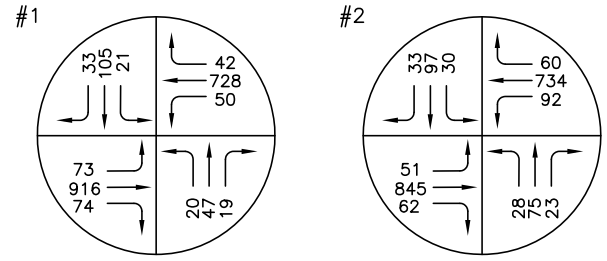


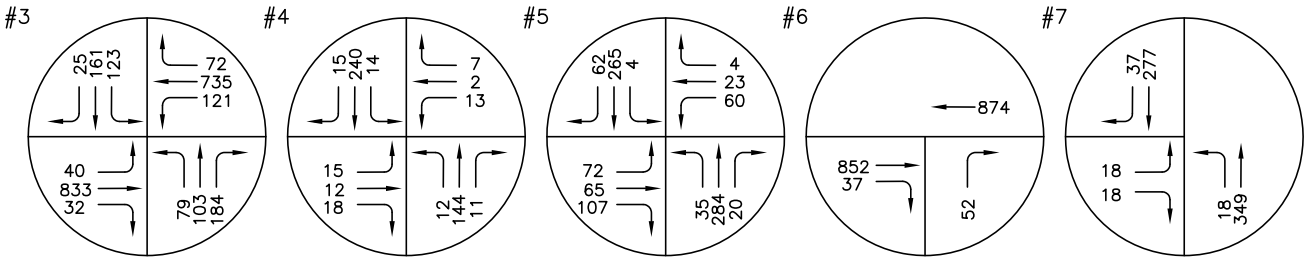
AM PEAK HOUR





PM PEAK HOUR





PROJECT COMPLETION TRAFFIC

CAJALCO PLAZA

OTHER DEVELOPMENTS

Based on information provided by the County of Riverside, other approved and pending developments within the study area are shown in **Table 5**. **Exhibit 8** illustrates the locations of these other developments. **Exhibit 9** illustrates the traffic generated by these other developments at study intersections.

Table 5. Trip Generation by Other Developments

Related Project	AM Peak			PM Peak			Daily
	Total	IN	OUT	Total	IN	OUT	
1. TR31243: 192 Residential Lots							
Sub-division 94.4 acres into 192 Res. lots	4	1	3	4	3	1	41
2. TR31244: 132 Residential Lots							
Sub-division 60.3 acres into 132 Res. lots	57	11	46	69	45	24	745
3. TR31245: 83 Residential Lots							
Sub-division 49.8 acres into 832 Res. lots	100	20	80	121	78	43	1,303

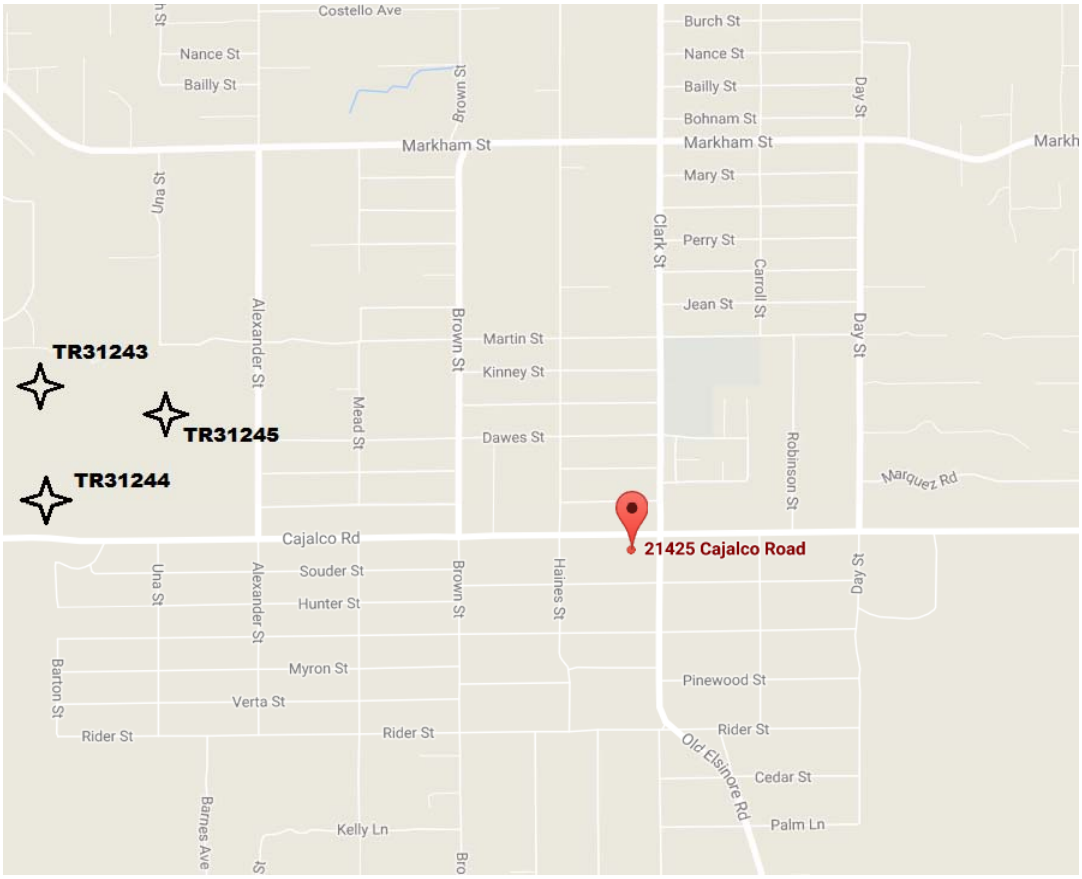


EXHIBIT 8. LOCATION OF OTHER DEVELOPMENTS

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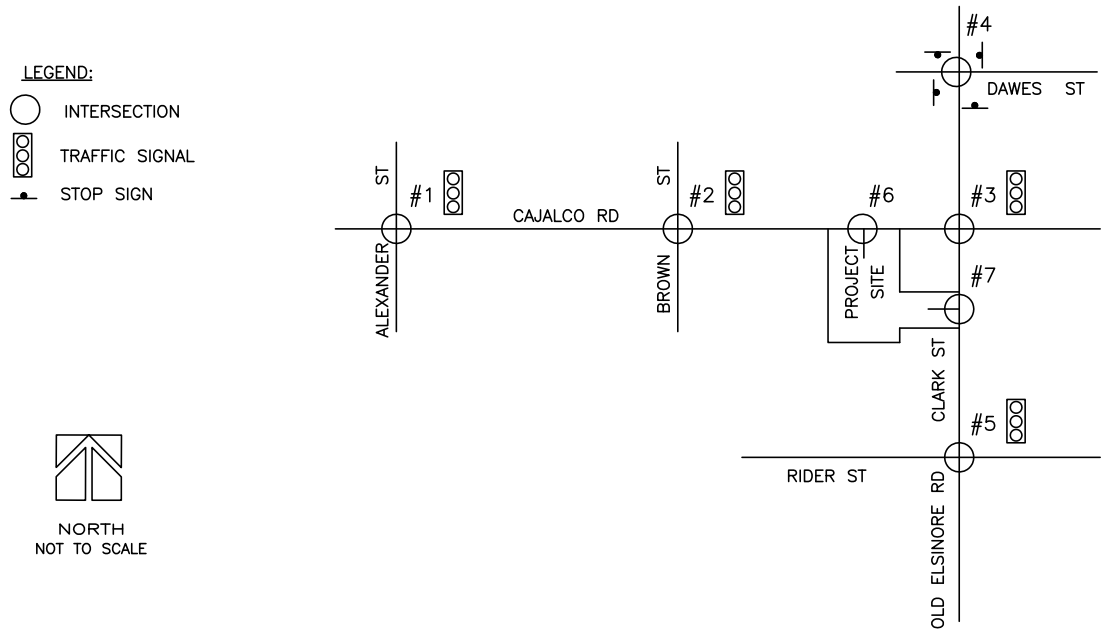
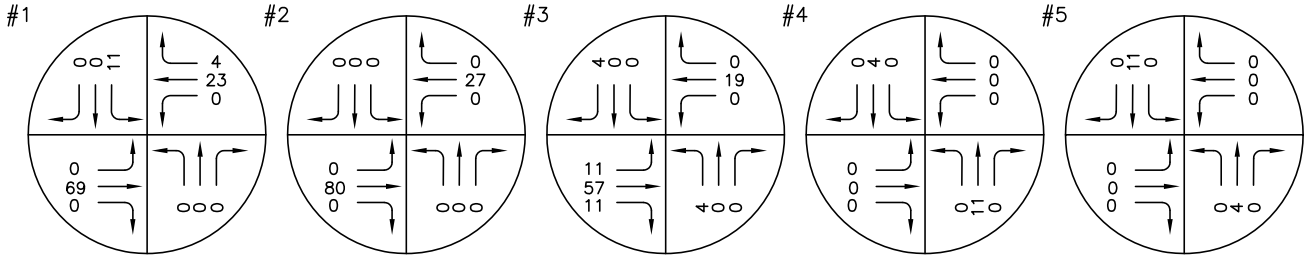
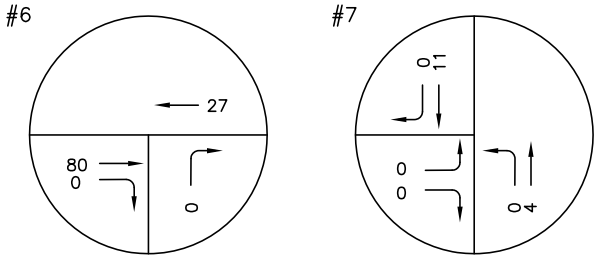
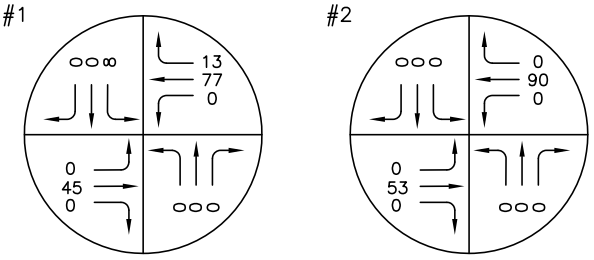


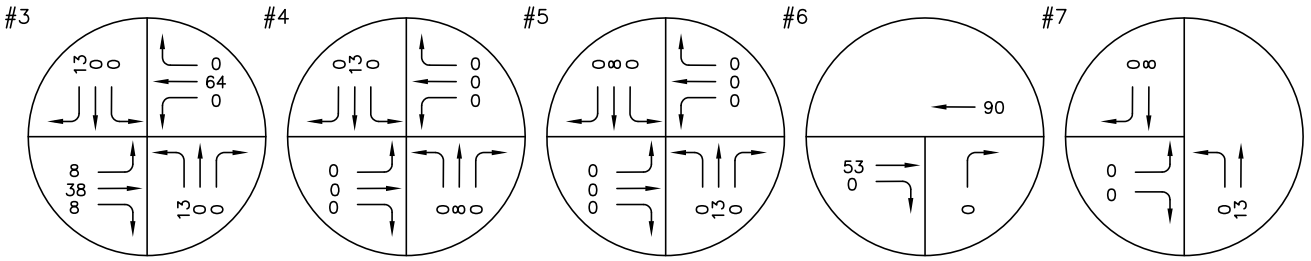
AM PEAK HOUR





PM PEAK HOUR





OTHER DEVELOPMENT TRAFFIC VOLUMES

CAJALCO PLAZA

CUMULATIVE (EXISTING + AMBIENT + PROJECT + OTHER DEVELOPMENTS)

Exhibit 10 illustrates lane configurations and cumulative traffic conditions including other developments and project trips. **Table 6** shows the level of services and intersection delays at study intersections. Worksheets are shown in **Appendix C**.

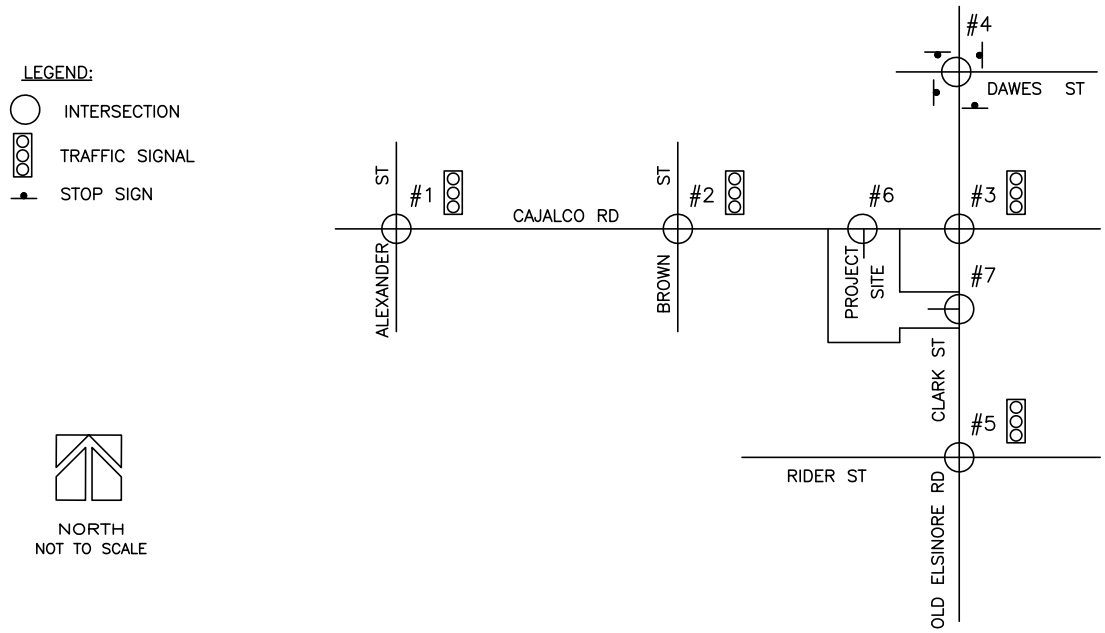
Table 6. Cumulative LOS

No.	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay*	LOS	Delay*
1	Cajalco Rd at Alexander St	F	82.5	D	53.1
2	Cajalco Rd at Brown St	C	31.9	E	75.2
3	Cajalco Rd at Clark St	C	29.5	D	42.5
4	Clark St at Dawes St	C	15.8	A	9.8
5	Clark St/Old Elsinore Rd at Rider St	B	19.4	B	17.7
6	Cajalco Rd at Driveway “A”	C	16.2	C	20.2
7	Clark St at Driveway “B”	B	13.4	B	13.1

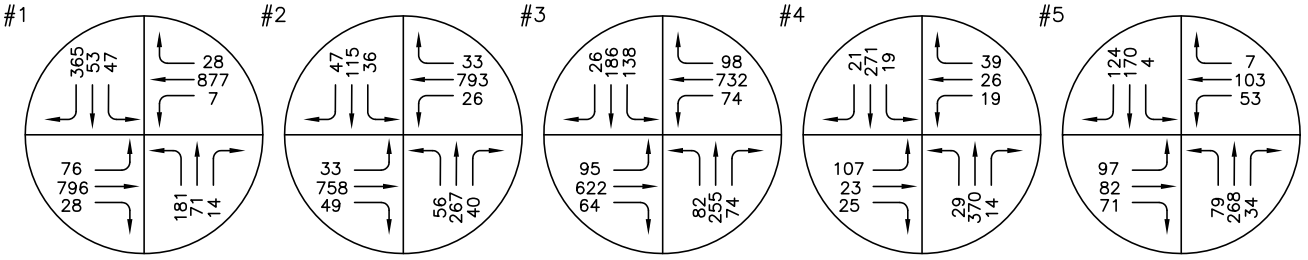
* Average Delay in seconds

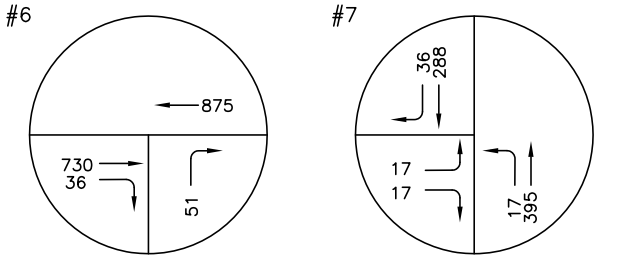
All studied intersections will maintain LOS D or better, except for the following:

- Intersection #1 Cajalco Road at Alexander Street: LOS F during the AM peak hour
- Intersection #2 Cajalco Road at Brown Street: LOS E during the PM peak hour

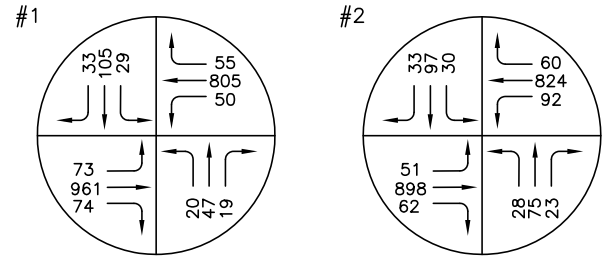


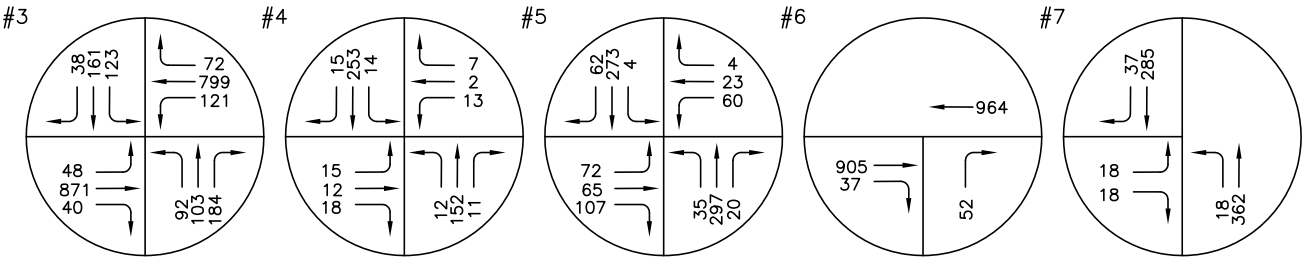
AM PEAK HOUR





PM PEAK HOUR





CUMULATIVE CONDITIONS

CAJALCO PLAZA

SIGNIFICANT IMPACT ANALYSIS

The following types of traffic impacts are considered to be “significant” under CEQA according to Riverside County's Traffic Impact Analysis Preparation Guidelines:

1) When existing traffic conditions (Analysis Scenario 1) exceed the General Plan target LOS.
2) When project traffic, when added to existing traffic (Analysis Scenario 2), will deteriorate the LOS to below the target LOS, and impacts cannot be mitigated through project conditions of approval.
3) When cumulative traffic (Analysis Scenario 3) exceeds the target LOS, and impacts cannot be mitigated through existing infrastructure funding mechanisms.

The target LOS used in this study is LOS "D" or better, according to the Riverside County General Plan. For existing traffic conditions, the project's levels of significance of traffic impact are shown in **Table 7**. All intersections operate at LOS "D" or better for existing traffic conditions.

Table 7. Significant Impact Analysis - Existing Conditions

Intersection	AM Peak Hour			PM Peak Hour		
	LOS	Delay	Exceed LOS D	LOS	Delay	Exceed LOS D
1. Cajalco Rd at Alexander St	D	43.5	No	C	27.8	No
2. Cajalco Rd at Brown St	C	26.4	No	D	36.2	No
3. Cajalco Rd at Clark St	C	26.8	No	D	46.0	No
4. Clark St at Dawes St	B	12.8	No	A	9.1	No
5. Clark St/Old Elsinore Rd at Rider St	B	18.4	No	B	16.8	No

Upon project completion in the opening year, the project's levels of significance of traffic impact are shown in **Table 8**. All intersections operate at LOS D or better, except for the following:

- #1 Cajalco Road at Alexander Street: LOS E in the AM peak hour

Table 8. Significant Impact Analysis - Project Completion

Intersection	AM Peak Hour			PM Peak Hour		
	LOS	Delay	Exceed LOS D	LOS	Delay	Exceed LOS D
1. Cajalco Rd at Alexander St	E	70.4	Yes	D	44.4	No
2. Cajalco Rd at Brown St	C	30.8	No	D	53.8	No
3. Cajalco Rd at Clark St	C	29.0	No	D	42.4	No
4. Clark St at Dawes St	C	15.3	No	A	9.6	No
5. Clark St/Old Elsinore Rd at Rider St	B	19.5	No	B	17.7	No
6. Cajalco Rd at Driveway “A”	B	14.8	No	C	18.9	No
7. Clark St at Driveway “B”	B	13.2	No	B	12.9	No

With consideration of other developments, the cumulative traffic impacts are shown in **Table 9**. All intersections operate at LOS D or better, except for the following:

- #1 Cajalco Road at Alexander Street: LOS F in the AM peak hour
- #2 Cajalco Road at Brown Street: LOS E in the PM peak hour

Table 9. Significant Impact Analysis - Cumulative

Intersection	AM Peak Hour			PM Peak Hour		
	LOS	Delay	Exceed LOS D	LOS	Delay	Exceed LOS D
1. Cajalco Rd at Alexander St	F	82.5	Yes	D	53.1	No
2. Cajalco Rd at Brown St	C	31.9	No	E	75.2	Yes
3. Cajalco Rd at Clark St	C	29.5	No	D	42.5	No
4. Clark St at Dawes St	C	15.8	No	A	9.8	No
5. Clark St/Old Elsinore Rd at Rider St	B	19.4	No	B	17.7	No
6. Cajalco Rd at Driveway “A”	C	16.2	No	C	20.2	No
7. Clark St at Driveway “B”	B	13.4	No	B	13.1	No

The intersections of Cajalco Road at Alexander Street and Cajalco Road at Clark Street are expected to exceed the General Plan target LOS “D” for the following scenarios:

- Project Completion (Existing + Ambient + Project)
- Cumulative (Existing + Ambient + Project + Other Developments)

MITIGATION MEASURES

As part of the development scope, the project will dedicate its lot frontage on Cajalco Road to the ultimate configuration as an Expressway with 220 feet right of way. The roadway design requirements for Expressway is shown in Standard 114 of the County of Riverside, see **Appendix D**. Such land dedication will contribute to the following mitigation measures:

- Widen the intersection of Cajalco Road and Alexander Street to provide two westbound through lanes
- Re-stripe the intersection of Cajalco Road and Brown Street to provide two eastbound and two westbound through lanes

As shown in **Table 10**, with the proposed mitigation measures, the significant traffic impacts can be improved and all intersections operate at LOS D or better.

Table 10. Significant Impact Analysis - Mitigation Measures

Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay	Significant Impact	LOS	Delay	Significant Impact
Project Completion with Mitigation Measures:						
1. Cajalco Rd at Alexander St	C	25.0	No	D	46.4	No
Cumulative Conditions with Mitigation Measures:						
2. Cajalco Rd at Brown St	N/A	N/A	N/A	C	28.8	No

The project should contribute to a fair share of the cost for future street widening and raised median construction. The calculation of fair share contribution is shown in **Table 11**.

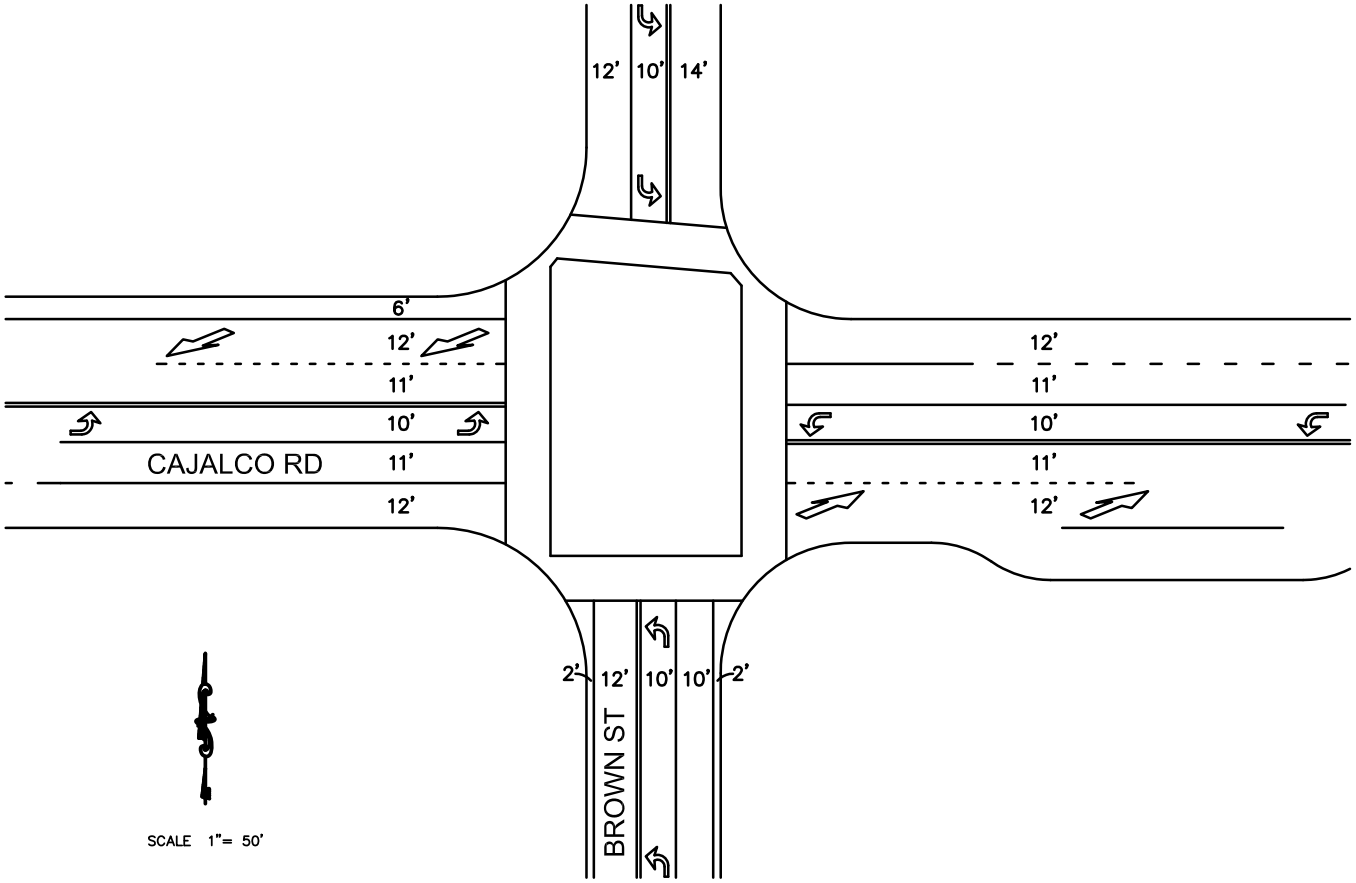
Table 11. Calculation of Fair Share Contribution

Intersection	Critical Peak Hour	Project Trips in Peak Hour (a)	Cumulative Traffic Volumes of All Approaches (b)	Existing Traffic Volumes of All Approaches (c)	Fair Share (d) = a/(b - c)
1. Cajalco Rd at Alexander St	AM	54	2,516	2,133	14%
2. Cajalco Rd at Brown St	PM	71	2,273	1,865	17%

The project's fair share should be:

- Widen the intersection of Cajalco Road and Alexander Street to provide two westbound through lanes
    - Fair Share: **14%**
- Re-stripe the intersection of Cajalco Road and Brown Street to provide two eastbound and two westbound through lanes
    - Fair Share: **17%**

A conceptual re-striping plan for the intersection of Cajalco Road and Brown Street is shown in **Exhibit 11**.



CAJALCO PLAZA

CONCEPTUAL RE-STRIPING PLAN

K2 TRAFFIC ENGINEERING

EXHIBIT 11

VEHICLE MILES TRAVELED (VMT) SCREENING

For the purpose of Senate Bill (SB) 743 and California Environmental Quality Act (CEQA) compliance, a VMT analysis should be conducted for land development projects that have the potential to increase the baseline VMT per service population. The County of Riverside has provided a number of screening criteria in its "*Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled*," dated December 2020, to eliminate the requirement for a full VMT Analysis.

The County Guidelines state that: "*The introduction of new Local-Serving retail has been determined to reduce VMT by shortening trips that will occur.*" The proposed developments should be identified as local-serving retail projects of less than 50,000 square feet, meeting the project type screening criteria. Therefore, the proposed project is presumed to cause a less-than-significant impact and a VMT analysis will not be required.

QUEUE ANALYSIS

The site plan shows that all vehicle stacking spaces are located off-street. A driveway for stacking leading to a drive-up window has been designed so as not to interfere with the free or orderly circulation of the parking area.

The layouts of the drive-thru restaurants shown on the site plan are preliminary only as the project has not been specifically designed for any specific tenant or business. As various characteristics of business brands and service models could result in different stacking requirements, it is advised that queue analysis be conducted for each actual application of drive-thru restaurant based on the finalized layout.

ON-SITE CIRCULATION

Site plan has shown drive aisles with ample space throughout the site. On-site circulation appears efficient and safe without unnecessary bottlenecks. The likelihood of on-site congestion and traffic queue are very low in general. The site plan is subject to review and approval by the Fire Department, Planning Department and Traffic Engineer.

APPENDIX A
SCOPING AGREEMENT

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. The analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated February 2005.

Case No. (i.e. TR, PM, CUP, PP)
Related Cases -
SP No. *Provide SP No. and list of other approved or active projects within the SP.*
EIR No.
GPA No.
CZ No.
Project Name: Cajalco Commercial Development
Project Address: 21419 & 21425 Cajalco Road, Perris, CA 92570
Project Description: New gas station (12 fueling stations) with convenient store including a fast food section (1,000 sf) and drive-thru, restaurants with drive-thru (3,092 sf), and retail stores (6,610 sf)

	Consultant	Developer
Name:	Kay Hsu, PE, TE, K2 Traffic Engineering, Inc.	Sameh Ibrahim, Logos Investment Group
Address:	1442 Irvine Blvd, Suite 210	3343 Deupty Evans
	Tustin, CA 92780	Norco, CA 92860
Telephone:	714-832-2116	714-376-7963
Fax:	kay@k2traffic.com	samibrahim.99@hotmail.com

A. Trip Generation Source: (ITE 7th Edition or other) ITE 9th Edition

Current GP Land Use	*Provide General Plan Land Use Designation (e.g.: MDR, CR, etc)* MU	Proposed Land Use	MU
Current Zoning	M-SC	Proposed Zoning	M-SC

Current Trip Generation	In	Out	Total	Proposed Trip Generation In	Out	Total
AM Trips	0	0	0	102	99	201
PM Trips	0	0	0	105	101	206

Internal Trip Allowance ☒ Yes ☐ No (10 % Trip Discount) See Exhibit 1
Pass-By Trip Allowance ☒ Yes ☐ No (25 % Trip Discount)

A passby trip discount of 25% is allowed for appropriate land uses. The passby trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: N 20 % S 20 % E 20 % W 40 %
(attach exhibit for detailed assignment) See Exhibit 2

C. Background Traffic

Project Build-out Year: *Provide realistic opening year, considering time needed for approvals and construction.* 2019 Annual Ambient Growth Rate: 2 %
Phase Year(s) n/a
Other area projects to be analyzed: n/a

Model/Forecast methodology n/a

D. Study intersections: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)*

1. Cajalco Road at Brown Street
2. Cajalco Road at Clark Street
3. Clark Street at Dawes Street
4. Clark Street at Rider Street
5. Cajalco Road at Alexander Street
6. Cajalco Road at Driveway Access
7.
8.
9.
10.

E. Study Roadway Segments: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)*

1. Cajalco Road
2.
3.
4.
5.
6.
7.
8.
9.
10.

E. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ☐ Yes ☒ No

If so, name of City Jurisdiction: n/a

F. Site Plan (please attach reduced copy) See Exhibit 3

G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Transportation Department)
(NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted," or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

See Exhibit 4

H. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.
Date of counts New counts

***NOTE* Traffic Study Submittal Form and appropriate fee must be submitted with, or prior to submittal of this form. Transportation Department staff will not process the Scoping Agreement prior to receipt of the fee.**

Recommended by:

Consultant's Representative — Date: 9/27/2017

Approved Scoping Agreement:

Riverside County Transportation Department — Date: 10/4/17

Scoping Agreement Submitted on 9/27/2017

Revised on 10/04/2017

EXHIBIT 1. TRIP GENERATION

Proposed developments include:
1. Gas station (12 fueling stations) with convenient store including a fast food section (1,000 sf) with drive-thru window
2. Restaurants with drive-thru window (3,092 sf)
3. Retail stores (6,610 sf)

TABLE A1. TRIP GENERATION RATE (ITE)

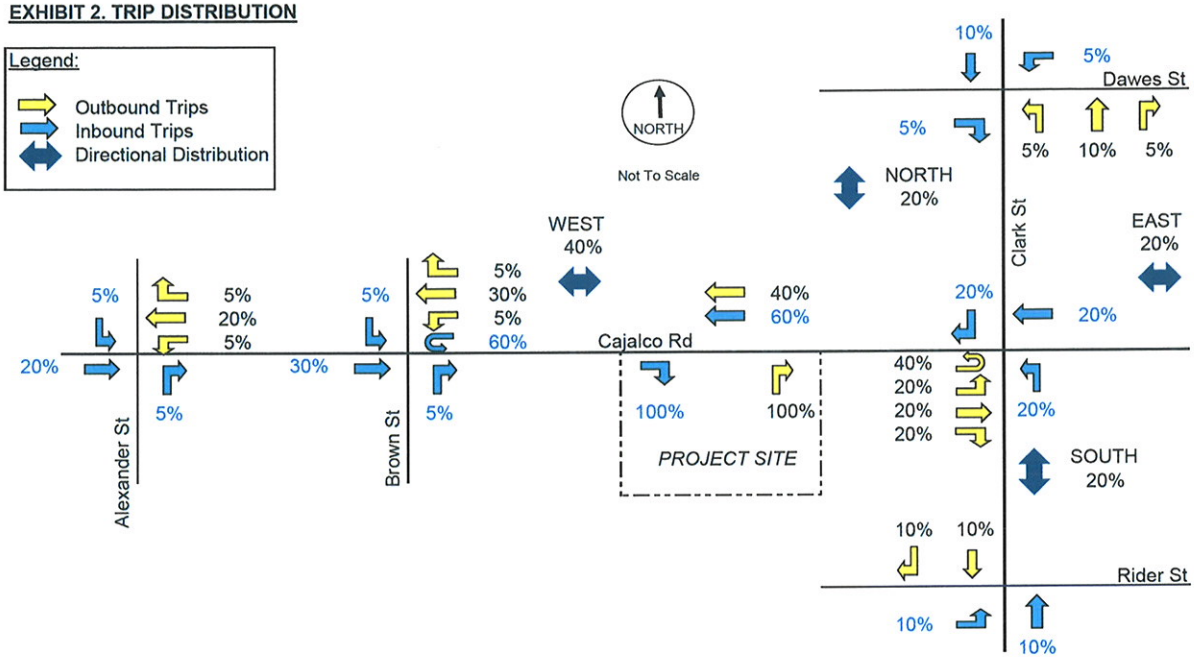
LAND USE	UNIT	Daily	AM Peak			PM Peak		
			Total	IN	OUT	Total	IN	OUT
Gas Station with Convenience Store (945)	Veh Fueling Station	162.78	10.16	50%	50%	13.51	50%	50%
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	496.12	45.42	51%	49%	32.65	52%	48%
Shopping Center (820)	1000 Sq. Ft.	42.70	0.96	62%	38%	3.71	48%	52%

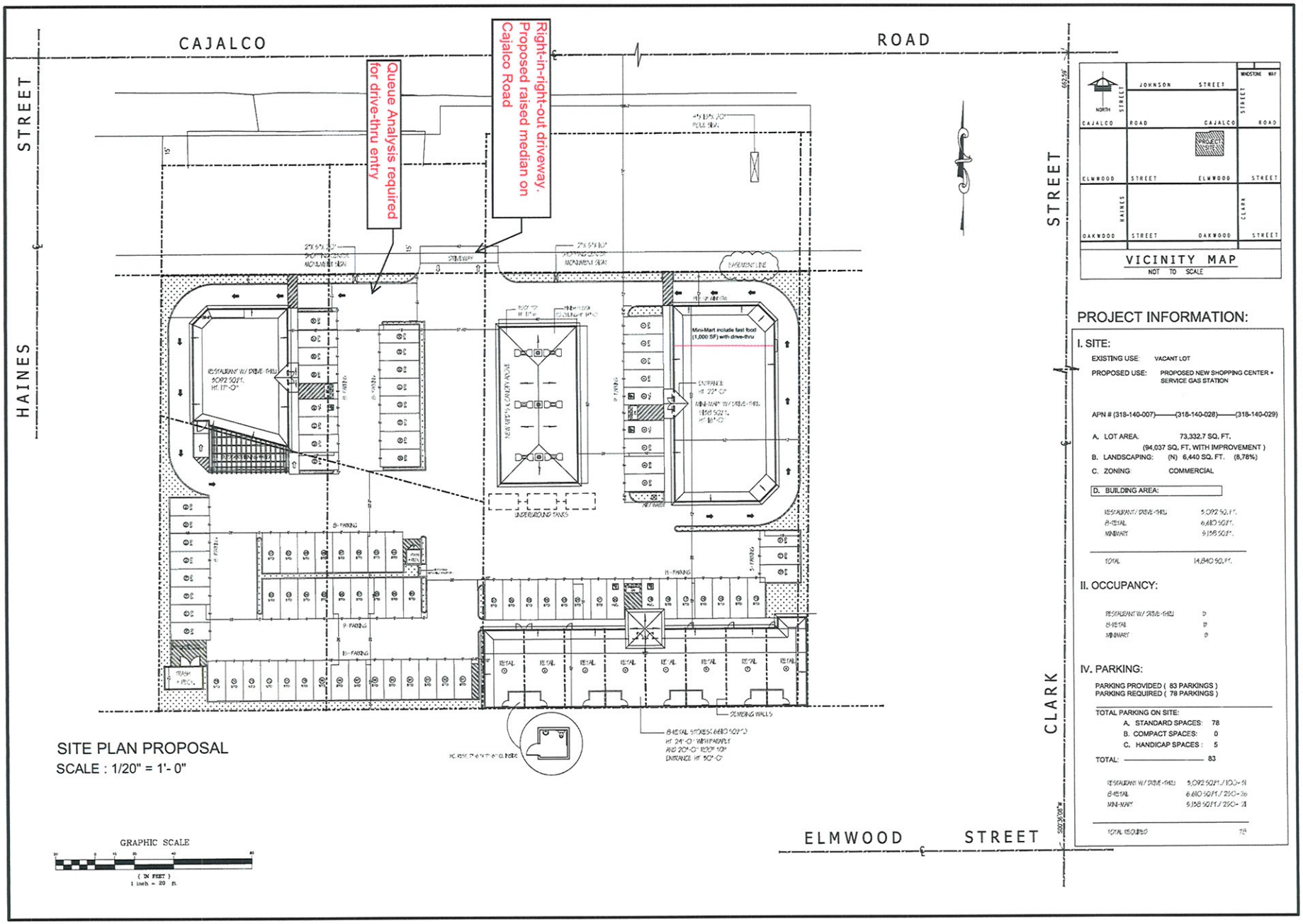
Source: Trip Generation Manual, 9th Edition

TABLE A2. TRIP GENERATION

LAND USE	UNIT	Quantity	AM Peak			PM Peak			Daily
			Total	IN	OUT	Total	IN	OUT	
Gas Station with Convenience Store (945)	Veh Fueling Station	12	122	61	61	162	81	81	1953
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	3	136	69	67	98	51	47	1488
Fast Food with Drive-Through Window (934)	1000 Sq. Ft.	1	45	23	22	33	17	16	496
Shopping Center (820)	1000 Sq. Ft.	6.6	6	4	2	24	12	12	282
Total			309	157	152	317	161	156	4219
Pass-By and Internal Trip Deduction		35%	-108	-55	-53	-111	-56	-55	-1477
Trip Generation			201	102	99	206	105	101	2742

EXHIBIT 2. TRIP DISTRIBUTION





PROJECT INFORMATION:

I. SITE:

EXISTING USE: VACANT LOT

PROPOSED USE: PROPOSED NEW SHOPPING CENTER + SERVICE GAS STATION

APN # (318-140-007)——(318-140-028)——(318-140-029)

A. LOT AREA: 73,332.7 SQ. FT.
(94,037 SQ. FT. WITH IMPROVEMENT)

B. LANDSCAPING: (N) 6,440 SQ. FT. (8.78%)

C. ZONING: COMMERCIAL

D. BUILDING AREA:

RESTAURANT / DRIVE-THRU	5,092 SQ.FT.
B-RETAIL	6,680 SQ.FT.
MINIMART	3,158 SQ.FT.
TOTAL	14,840 SQ.FT.

II. OCCUPANCY:

RESTAURANT W/ DRIVE-THRU	B
B-RETAIL	B
MINIMART	B

IV. PARKING:

PARKING PROVIDED (83 PARKINGS)
PARKING REQUIRED (78 PARKINGS)

TOTAL PARKING ON SITE:

A. STANDARD SPACES:	78
B. COMPACT SPACES:	0
C. HANDICAP SPACES :	5
TOTAL:	83

RESTAURANT W/ DRIVE-THRU	5,092 SQ.FT. / 100= 51
B-RETAIL	6,680 SQ.FT. / 250= 26
MINI-MART	3,158 SQ.FT. / 250= 13
TOTAL REQUIRED	78

REVISIONS	BY
06/20/2017	S.H

SITE PLAN PROPOSAL

EUROCON
GROUP INCORPORATED
CONSULTANTS IN THE BUILDING INDUSTRY
21604 SOUTH ALAMEDA STREET, CARSON, CA 90810
PHONE: (310) 835-4500 FAX: (310) 835-4502

PROPOSED NEW SHOPPING CENTER + SERVICE GAS SATION AND DRIVE-THRU CARWAH
21419 & 21425 CAJALCO ROAD, PERRIS, CA 92570
OWNER: MR. SAMEH IBRAHIM

Date	
Scale	
Drawn	A.Z.
Job	
Sheet	A01
Of	Sheets

EXHIBIT 3. SITE PLAN

EXHIBIT 4. Specific Issues to be addressed in the Study

1 Cajalco Road is Expressway (Standard No. 82). Intersection Spacing is substandard (Driveway to Clark St). Refer standard No. 114, Ordinance 461.

2 Queuing analysis is required at drive-thru entry

3 Right-in-right-out access only and raised curbed median are required

APPENDIX B
TURNING MOVEMENT COUNT DATA

INTERSECTION TURNING MOVEMENT COUNTS

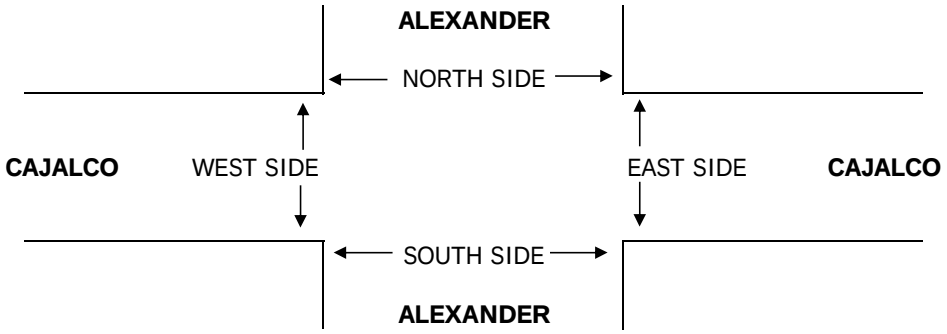
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	PERRIS	PROJECT #:	
10/10/17	NORTH & SOUTH:	ALEXANDER	LOCATION #:	1
TUESDAY	EAST & WEST:	CAJALCO	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND ALEXANDER			SOUTHBOUND ALEXANDER			EASTBOUND CAJALCO			WESTBOUND CAJALCO			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	62	16	1	4	13	76	7	143	6	0	194	8	530
	7:15 AM	41	16	1	8	8	129	25	185	8	0	189	3	613
	7:30 AM	37	15	3	12	14	89	29	182	6	0	174	3	564
	7:45 AM	24	17	3	4	13	37	8	108	5	3	200	4	426
	8:00 AM	23	17	5	6	10	8	4	101	1	10	190	8	383
	8:15 AM	4	12	4	9	7	11	1	81	2	4	227	8	370
	8:30 AM	9	10	3	1	6	7	2	98	0	2	165	6	309
	8:45 AM	2	6	3	8	11	3	0	72	2	3	158	8	276
	VOLUMES	202	109	23	52	82	360	76	970	30	22	1,497	48	3,471
	APPROACH %	61%	33%	7%	11%	17%	73%	7%	90%	3%	1%	96%	3%	
	APP/DEPART	334	/	233	494	/	134	1,076	/	1,045	1,567	/	2,059	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	164	64	8	28	48	331	69	618	25	3	757	18	2,133
	APPROACH %	70%	27%	3%	7%	12%	81%	10%	87%	4%	0%	97%	2%	
	PEAK HR FACTOR		0.744			0.702			0.817			0.940		0.870
	APP/DEPART	236	/	151	407	/	76	712	/	654	778	/	1,252	0
PM	4:00 PM	6	8	3	4	19	8	17	227	14	9	160	10	485
	4:15 PM	5	10	1	5	15	6	19	207	22	9	138	9	446
	4:30 PM	5	7	5	8	18	11	10	187	18	11	187	12	479
	4:45 PM	4	10	2	3	22	9	22	207	17	14	142	6	458
	5:00 PM	6	15	5	3	18	6	13	216	18	5	147	11	463
	5:15 PM	3	11	2	1	37	4	21	202	14	12	167	5	479
	5:30 PM	7	10	0	9	17	8	20	185	14	14	133	11	428
	5:45 PM	8	9	3	2	13	7	18	174	14	9	108	5	370
	VOLUMES	44	80	21	35	159	59	140	1,605	131	83	1,182	69	3,608
	APPROACH %	30%	55%	14%	14%	63%	23%	7%	86%	7%	6%	89%	5%	
	APP/DEPART	145	/	289	253	/	373	1,876	/	1,661	1,334	/	1,285	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	18	43	14	15	95	30	66	812	67	42	643	34	1,879
	APPROACH %	24%	57%	19%	11%	68%	21%	7%	86%	7%	6%	89%	5%	
	PEAK HR FACTOR		0.721			0.833			0.956			0.856		0.981
	APP/DEPART	75	/	143	140	/	204	945	/	841	719	/	691	0



INTERSECTION TURNING MOVEMENT COUNTS

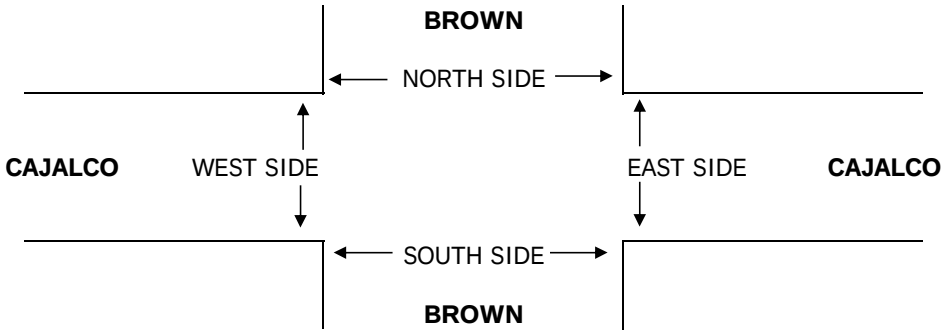
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	PERRIS	PROJECT #:	
10/10/17	NORTH & SOUTH:	BROWN	LOCATION #:	2
TUESDAY	EAST & WEST:	CAJALCO	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND BROWN			SOUTHBOUND BROWN			EASTBOUND CAJALCO			WESTBOUND CAJALCO			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	20	58	7	6	12	13	6	134	5	1	186	5	453
	7:15 AM	12	73	7	10	21	8	6	160	13	1	171	5	487
	7:30 AM	11	65	8	3	33	10	9	186	17	10	158	6	516
	7:45 AM	8	46	11	10	38	12	9	109	9	8	155	10	425
	8:00 AM	5	22	4	7	35	19	5	101	5	16	184	10	413
	8:15 AM	5	9	9	6	15	7	1	84	6	7	225	7	381
	8:30 AM	5	7	8	4	10	8	5	105	3	4	167	6	332
	8:45 AM	10	13	12	5	4	10	0	77	4	5	151	3	294
	VOLUMES	76	293	66	51	168	87	41	956	62	52	1,397	52	3,301
	APPROACH %	17%	67%	15%	17%	55%	28%	4%	90%	6%	3%	93%	3%	
	APP/DEPART	435	/	386	306	/	282	1,059	/	1,073	1,501	/	1,560	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	51	242	33	29	104	43	30	589	44	20	670	26	1,881
	APPROACH %	16%	74%	10%	16%	59%	24%	5%	89%	7%	3%	94%	4%	
	PEAK HR FACTOR		0.886			0.733			0.782			0.932		0.911
	APP/DEPART	326	/	298	176	/	168	663	/	651	716	/	764	0
PM	4:00 PM	5	18	3	3	6	4	11	207	7	18	164	12	458
	4:15 PM	10	19	2	5	29	9	9	179	22	38	149	12	483
	4:30 PM	12	12	3	1	19	9	9	188	10	17	163	10	453
	4:45 PM	4	17	6	5	22	8	14	183	12	19	151	16	457
	5:00 PM	7	13	3	11	19	5	9	186	20	25	148	14	460
	5:15 PM	2	26	4	6	28	8	14	184	14	19	179	11	495
	5:30 PM	10	19	4	4	25	11	10	169	15	24	131	13	435
	5:45 PM	1	21	5	5	20	8	8	165	9	23	115	9	389
	VOLUMES	51	145	30	40	168	62	84	1,461	109	183	1,200	97	3,630
	APPROACH %	23%	64%	13%	15%	62%	23%	5%	88%	7%	12%	81%	7%	
	APP/DEPART	226	/	326	270	/	460	1,654	/	1,531	1,480	/	1,313	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	25	68	16	23	88	30	46	741	56	80	641	51	1,865
	APPROACH %	23%	62%	15%	16%	62%	21%	5%	88%	7%	10%	83%	7%	
	PEAK HR FACTOR		0.852			0.839			0.980			0.923		0.942
	APP/DEPART	109	/	165	141	/	224	843	/	780	772	/	696	0



INTERSECTION TURNING MOVEMENT COUNTS

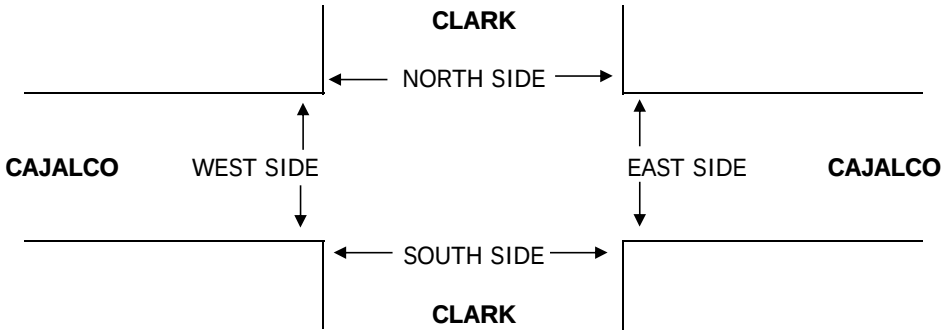
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	PERRIS	PROJECT #:	
10/10/17	NORTH & SOUTH:	CLARK	LOCATION #:	3
TUESDAY	EAST & WEST:	CAJALCO	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND CLARK			SOUTHBOUND CLARK			EASTBOUND CAJALCO			WESTBOUND CAJALCO			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	20	35	14	26	15	2	12	128	8	6	171	13	450
	7:15 AM	12	66	11	23	35	4	25	128	13	12	164	25	518
	7:30 AM	16	71	18	35	41	1	8	143	21	15	135	33	537
	7:45 AM	23	59	21	33	43	3	7	121	10	13	170	18	521
	8:00 AM	20	20	17	34	33	12	5	104	4	11	177	13	450
	8:15 AM	27	16	25	9	8	1	2	92	8	14	211	11	424
	8:30 AM	24	12	19	18	16	2	3	105	8	28	152	8	395
	8:45 AM	18	7	24	13	12	3	2	93	7	21	142	14	356
	VOLUMES	160	286	149	191	203	28	64	914	79	120	1,322	135	3,651
	APPROACH %	27%	48%	25%	45%	48%	7%	6%	86%	7%	8%	84%	9%	
	APP/DEPART	595	/	485	422	/	402	1,057	/	1,254	1,577	/	1,510	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	71	216	67	125	152	20	45	496	48	51	646	89	2,026
	APPROACH %	20%	61%	19%	42%	51%	7%	8%	84%	8%	6%	82%	11%	
	PEAK HR FACTOR		0.843			0.940			0.856			0.978		0.943
	APP/DEPART	354	/	350	297	/	251	589	/	688	786	/	737	0
PM	4:00 PM	22	39	34	20	27	4	1	197	11	21	175	17	568
	4:15 PM	18	20	29	28	27	3	3	174	7	30	176	11	526
	4:30 PM	26	24	36	25	22	3	0	179	7	21	160	11	514
	4:45 PM	20	13	37	26	34	6	1	203	9	16	165	21	551
	5:00 PM	22	15	36	27	28	5	1	183	4	22	160	20	523
	5:15 PM	17	24	46	27	36	5	1	165	8	32	184	11	556
	5:30 PM	13	25	48	31	31	7	2	187	8	23	157	13	545
	5:45 PM	14	22	50	27	35	5	0	153	8	17	123	17	471
	VOLUMES	152	182	316	211	240	38	9	1,441	62	182	1,300	121	4,254
	APPROACH %	23%	28%	49%	43%	49%	8%	1%	95%	4%	11%	81%	8%	
	APP/DEPART	650	/	312	489	/	484	1,512	/	1,968	1,603	/	1,490	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	72	77	167	111	129	23	5	738	29	93	666	65	2,175
	APPROACH %	23%	24%	53%	42%	49%	9%	1%	96%	4%	11%	81%	8%	
	PEAK HR FACTOR		0.908			0.953			0.906			0.907		0.978
	APP/DEPART	316	/	147	263	/	251	772	/	1,016	824	/	761	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

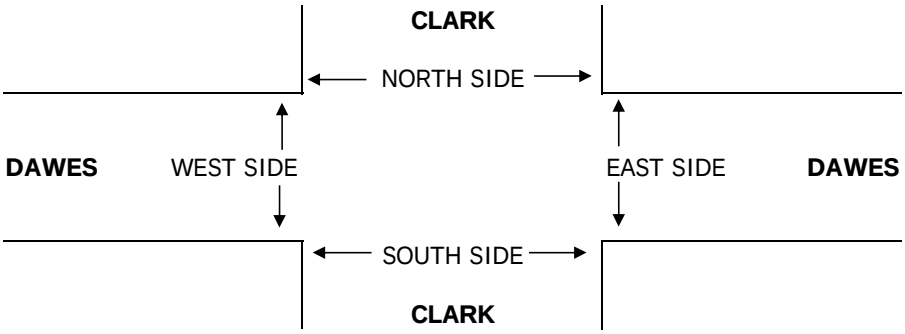
DATE:					
10/10/17	LOCATION:	PERRIS	PROJECT #:		
TUESDAY	NORTH & SOUTH:	CLARK	LOCATION #:	4	
	EAST & WEST:	DAWES	CONTROL:	ALL WAY STOP	

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND CLARK			SOUTHBOUND CLARK			EASTBOUND DAWES			WESTBOUND DAWES			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	11	58	2	1	35	3	4	0	6	2	5	4	131
	7:15 AM	6	100	4	4	59	3	17	10	6	1	5	5	220
	7:30 AM	4	80	2	5	71	3	38	6	5	5	7	20	246
	7:45 AM	2	79	1	7	68	10	38	5	2	6	7	6	231
	8:00 AM	1	27	3	1	43	4	4	1	0	2	1	5	92
	8:15 AM	1	22	1	1	20	2	2	0	0	1	1	1	52
	8:30 AM	0	17	0	0	23	0	0	1	2	1	2	1	47
	8:45 AM	2	22	1	0	18	0	1	0	2	0	0	0	46
	VOLUMES	27	405	14	19	337	25	104	23	23	18	28	42	1,065
	APPROACH %	6%	91%	3%	5%	88%	7%	69%	15%	15%	20%	32%	48%	
	APP/DEPART	446	/	551	381	/	378	150	/	56	88	/	80	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	23	317	9	17	233	19	97	21	19	14	24	35	828
	APPROACH %	7%	91%	3%	6%	87%	7%	71%	15%	14%	19%	33%	48%	
	PEAK HR FACTOR		0.793			0.791			0.699			0.570		0.841
	APP/DEPART	349	/	449	269	/	266	137	/	47	73	/	66	0
PM	4:00 PM	5	52	5	1	49	1	0	3	1	0	2	2	121
	4:15 PM	4	25	1	10	43	2	1	2	3	2	0	1	94
	4:30 PM	0	25	0	3	49	3	3	2	3	1	3	3	95
	4:45 PM	3	23	1	2	49	2	7	2	2	4	0	2	97
	5:00 PM	1	30	3	3	47	3	3	1	4	2	1	2	100
	5:15 PM	1	24	1	4	54	4	4	2	6	4	0	0	104
	5:30 PM	2	33	1	2	47	3	5	2	1	0	0	3	99
	5:45 PM	2	36	0	4	61	4	2	6	1	1	1	1	119
	VOLUMES	18	248	12	29	399	22	25	20	21	14	7	14	829
	APPROACH %	6%	89%	4%	6%	89%	5%	38%	30%	32%	40%	20%	40%	
	APP/DEPART	278	/	287	450	/	434	66	/	61	35	/	47	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	6	123	5	13	209	14	14	11	12	7	2	6	422
	APPROACH %	4%	92%	4%	6%	89%	6%	38%	30%	32%	47%	13%	40%	
	PEAK HR FACTOR		0.882			0.855			0.771			0.750		0.887
	APP/DEPART	134	/	143	236	/	228	37	/	29	15	/	22	0



INTERSECTION TURNING MOVEMENT COUNTS

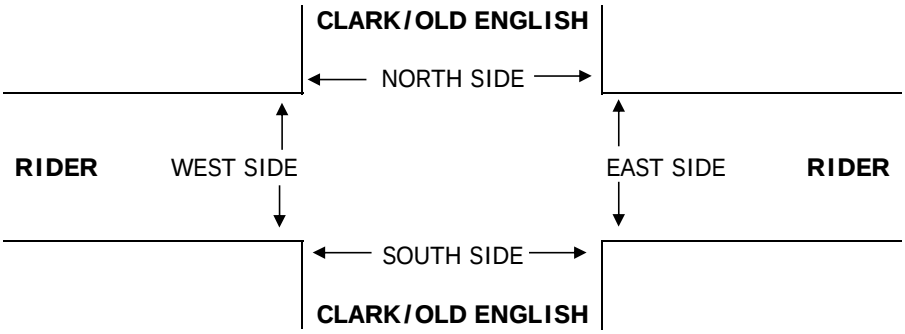
PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	PERRIS	PROJECT #:	
10/10/17	NORTH & SOUTH:	CLARK/OLD ENGLISH	LOCATION #:	5
TUESDAY	EAST & WEST:	RIDER	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND CLARK/OLD ENGLISH			SOUTHBOUND CLARK/OLD ENGLISH			EASTBOUND RIDER			WESTBOUND RIDER			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	10	48	7	1	36	14	11	13	15	7	12	1	175
	7:15 AM	13	56	10	0	31	18	16	15	12	7	17	0	195
	7:30 AM	19	68	5	3	38	41	19	15	19	16	34	3	280
	7:45 AM	30	59	9	0	31	32	35	31	18	18	30	2	295
	8:00 AM	7	39	12	2	23	15	14	7	10	6	9	1	145
	8:15 AM	12	41	8	1	31	29	22	19	11	8	16	4	202
	8:30 AM	14	36	3	2	30	18	16	12	17	14	10	2	174
	8:45 AM	9	30	8	1	19	13	17	16	11	11	18	0	153
	VOLUMES	114	377	62	10	239	180	150	128	113	87	146	13	1,619
	APPROACH %	21%	68%	11%	2%	56%	42%	38%	33%	29%	35%	59%	5%	
	APP/DEPART	553	/	540	429	/	439	391	/	200	246	/	440	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	72	231	31	4	136	105	81	74	64	48	93	6	945
	APPROACH %	22%	69%	9%	2%	56%	43%	37%	34%	29%	33%	63%	4%	
	PEAK HR FACTOR		0.852			0.747			0.652			0.693		0.801
	APP/DEPART	334	/	318	245	/	248	219	/	109	147	/	270	0
PM	4:00 PM	4	68	11	2	25	14	13	19	20	12	6	2	196
	4:15 PM	4	50	11	0	53	10	19	8	18	13	5	3	194
	4:30 PM	10	56	7	2	50	17	15	12	19	12	8	2	210
	4:45 PM	6	58	7	1	33	7	17	4	22	16	2	0	173
	5:00 PM	7	53	3	0	61	9	18	19	27	13	6	2	218
	5:15 PM	11	78	8	2	57	10	14	13	24	11	7	1	236
	5:30 PM	9	62	3	0	51	18	15	16	20	18	3	0	215
	5:45 PM	5	56	4	2	63	11	10	11	26	12	5	1	206
	VOLUMES	56	481	54	9	393	96	121	102	176	107	42	11	1,648
	APPROACH %	9%	81%	9%	2%	79%	19%	30%	26%	44%	67%	26%	7%	
	APP/DEPART	591	/	613	498	/	676	399	/	165	160	/	194	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	32	249	18	4	232	48	57	59	97	54	21	4	875
	APPROACH %	11%	83%	6%	1%	82%	17%	27%	28%	46%	68%	27%	5%	
	PEAK HR FACTOR		0.771			0.934			0.832			0.940		0.927
	APP/DEPART	299	/	310	284	/	383	213	/	81	79	/	101	0



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)	69	618	25	3	757	18	164	64	8	28	48	331
Future Volume (veh/h)	69	618	25	3	757	18	164	64	8	28	48	331
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	75	672	27	3	823	20	178	70	9	30	52	360
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	96	796	32	101	815	20	237	84	9	67	86	486
Arrive On Green	0.05	0.45	0.45	0.06	0.45	0.45	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1779	71	1774	1811	44	490	244	27	70	250	1408
Grp Volume(v), veh/h	75	0	699	3	0	843	257	0	0	442	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1850	1774	0	1855	761	0	0	1728	0	0
Q Serve(g_s), s	3.8	0.0	30.2	0.1	0.0	40.5	9.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	30.2	0.1	0.0	40.5	30.5	0.0	0.0	20.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.69		0.04	0.07		0.81
Lane Grp Cap(c), veh/h	96	0	828	101	0	835	331	0	0	640	0	0
V/C Ratio(X)	0.78	0.00	0.84	0.03	0.00	1.01	0.78	0.00	0.00	0.69	0.00	0.00
Avail Cap(c_a), veh/h	104	0	828	101	0	835	331	0	0	640	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.0	0.0	22.1	40.1	0.0	24.7	31.2	0.0	0.0	26.3	0.0	0.0
Incr Delay (d2), s/veh	28.8	0.0	10.2	0.1	0.0	33.4	11.2	0.0	0.0	3.2	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	2.6	0.0	17.7	0.1	0.0	28.4	7.4	0.0	0.0	10.3	0.0	0.0
LnGrp Delay(d),s/veh	70.8	0.0	32.3	40.2	0.0	58.2	42.3	0.0	0.0	29.5	0.0	0.0
LnGrp LOS	E		C	D		F	D			C		
Approach Vol, veh/h		774			846			257			442	
Approach Delay, s/veh		36.0			58.1			42.3			29.5	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.6	9.6	44.8		35.6	9.4	45.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.1	5.1	40.3		31.1	5.3	40.1
Max Q Clear Time (g_c+I1), s		32.5	2.1	32.2		22.8	5.8	42.5
Green Ext Time (p_c), s		0.0	0.0	2.7		1.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	589	44	20	670	26	51	242	33	29	104	43
Future Volume (veh/h)	30	589	44	20	670	26	51	242	33	29	104	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	33	640	48	22	728	28	55	263	36	32	113	47
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	55	1584	119	194	984	38	267	298	41	162	219	91
Arrive On Green	0.03	0.47	0.47	0.11	0.55	0.55	0.04	0.19	0.19	0.03	0.17	0.17
Sat Flow, veh/h	1774	3338	250	1774	1782	69	1774	1604	220	1774	1251	520
Grp Volume(v), veh/h	33	339	349	22	0	756	55	0	299	32	0	160
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1774	0	1851	1774	0	1824	1774	0	1771
Q Serve(g_s), s	1.7	11.2	11.2	1.0	0.0	27.8	2.3	0.0	14.4	1.3	0.0	7.4
Cycle Q Clear(g_c), s	1.7	11.2	11.2	1.0	0.0	27.8	2.3	0.0	14.4	1.3	0.0	7.4
Prop In Lane	1.00		0.14	1.00		0.04	1.00		0.12	1.00		0.29
Lane Grp Cap(c), veh/h	55	840	863	194	0	1022	267	0	339	162	0	310
V/C Ratio(X)	0.60	0.40	0.40	0.11	0.00	0.74	0.21	0.00	0.88	0.20	0.00	0.52
Avail Cap(c_a), veh/h	101	840	863	194	0	1022	294	0	379	209	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	15.4	15.4	36.2	0.0	15.2	28.8	0.0	35.7	30.0	0.0	33.7
Incr Delay (d2), s/veh	9.8	1.4	1.4	0.3	0.0	4.8	0.4	0.0	19.4	0.6	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.8	6.0	0.5	0.0	15.4	1.1	0.0	9.1	0.7	0.0	3.7
LnGrp Delay(d),s/veh	52.9	16.8	16.8	36.4	0.0	20.1	29.2	0.0	55.1	30.5	0.0	35.0
LnGrp LOS	D	B	B	D		C	C		E	C		D
Approach Vol, veh/h		721			778			354			192	
Approach Delay, s/veh		18.5			20.5			51.1			34.3	
Approach LOS		B			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	7.3	21.2	14.3	47.2	8.2	20.2	7.3	54.2
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	5.1	18.7	5.5	42.7	5.1	18.7	5.1	43.1
Max Q Clear Time (g_c+I1), s	3.3	16.4	3.0	13.2	4.3	9.4	3.7	29.8
Green Ext Time (p_c), s	0.0	0.4	0.0	4.0	0.0	0.5	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	496	48	51	646	89	71	216	67	125	152	20
Future Volume (veh/h)	45	496	48	51	646	89	71	216	67	125	152	20
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	49	539	52	55	702	97	77	235	73	136	165	22
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	148	1121	501	414	1651	739	163	288	245	170	377	321
Arrive On Green	0.08	0.32	0.32	0.23	0.47	0.47	0.05	0.15	0.15	0.10	0.20	0.20
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	49	539	52	55	702	97	77	235	73	136	165	22
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.3	11.0	1.6	2.2	11.9	2.0	2.0	11.0	3.7	6.8	7.0	1.0
Cycle Q Clear(g_c), s	2.3	11.0	1.6	2.2	11.9	2.0	2.0	11.0	3.7	6.8	7.0	1.0
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	148	1121	501	414	1651	739	163	288	245	170	377	321
V/C Ratio(X)	0.33	0.48	0.10	0.13	0.43	0.13	0.47	0.82	0.30	0.80	0.44	0.07
Avail Cap(c_a), veh/h	148	1121	501	414	1651	739	210	445	378	286	631	537
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	38.9	24.8	13.4	27.3	16.0	5.5	41.8	36.8	33.7	39.9	31.4	29.0
Incr Delay (d2), s/veh	5.9	1.5	0.4	0.1	0.2	0.1	2.1	6.7	0.7	8.5	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.6	0.9	1.1	5.8	1.3	1.0	6.1	1.6	3.7	3.7	0.4
LnGrp Delay(d),s/veh	44.8	26.3	13.8	27.4	16.1	5.6	43.9	43.5	34.4	48.3	32.2	29.1
LnGrp LOS	D	C	B	C	B	A	D	D	C	D	C	C
Approach Vol, veh/h		640			854			385			323	
Approach Delay, s/veh		26.7			15.7			41.9			38.8	
Approach LOS		C			B			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	13.1	18.4	25.5	33.0	8.8	22.7	12.0	46.5
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	14.5	21.5	7.5	28.5	5.5	30.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	8.8	13.0	4.2	13.0	4.0	9.0	4.3	13.9
Green Ext Time (p_c), s	0.1	0.9	0.0	3.0	0.0	0.8	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	21	19	14	24	35	23	317	9	17	233	19
Future Vol, veh/h	97	21	19	14	24	35	23	317	9	17	233	19
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	105	23	21	15	26	38	25	345	10	18	253	21
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.9	9.7	14.5	12.4
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	71%	19%	100%	0%
Vol Thru, %	0%	97%	15%	33%	0%	92%
Vol Right, %	0%	3%	14%	48%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	326	137	73	17	252
LT Vol	23	0	97	14	17	0
Through Vol	0	317	21	24	0	233
RT Vol	0	9	19	35	0	19
Lane Flow Rate	25	354	149	79	18	274
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.042	0.549	0.245	0.128	0.032	0.43
Departure Headway (Hd)	6.105	5.58	5.934	5.798	6.209	5.649
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	587	648	605	617	577	638
Service Time	3.834	3.308	3.978	3.846	3.939	3.38
HCM Lane V/C Ratio	0.043	0.546	0.246	0.128	0.031	0.429
HCM Control Delay	9.1	14.9	10.9	9.7	9.1	12.6
HCM Lane LOS	A	B	B	A	A	B
HCM 95th-tile Q	0.1	3.3	1	0.4	0.1	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	74	64	48	93	6	72	231	31	4	136	0
Future Volume (veh/h)	81	74	64	48	93	6	72	231	31	4	136	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	88	80	70	52	101	7	78	251	34	4	148	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	127	123	107	92	196	14	119	708	96	10	706	0
Arrive On Green	0.07	0.13	0.13	0.05	0.11	0.11	0.07	0.44	0.44	0.01	0.38	0.00
Sat Flow, veh/h	1774	918	803	1774	1722	119	1774	1607	218	1774	1863	0
Grp Volume(v), veh/h	88	0	150	52	0	108	78	0	285	4	148	0
Grp Sat Flow(s),veh/h/ln	1774	0	1721	1774	0	1842	1774	0	1824	1774	1863	0
Q Serve(g_s), s	2.4	0.0	4.0	1.4	0.0	2.7	2.1	0.0	5.1	0.1	2.6	0.0
Cycle Q Clear(g_c), s	2.4	0.0	4.0	1.4	0.0	2.7	2.1	0.0	5.1	0.1	2.6	0.0
Prop In Lane	1.00		0.47	1.00		0.06	1.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	127	0	230	92	0	210	119	0	804	10	706	0
V/C Ratio(X)	0.70	0.00	0.65	0.57	0.00	0.51	0.66	0.00	0.35	0.42	0.21	0.00
Avail Cap(c_a), veh/h	200	0	652	182	0	679	182	0	804	182	706	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.1	0.0	20.1	22.6	0.0	20.4	22.2	0.0	9.1	24.2	10.2	0.0
Incr Delay (d2), s/veh	6.7	0.0	3.1	5.4	0.0	1.9	6.1	0.0	1.2	26.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.1	0.8	0.0	1.5	1.2	0.0	2.8	0.1	1.4	0.0
LnGrp Delay(d),s/veh	28.8	0.0	23.2	28.0	0.0	22.3	28.3	0.0	10.3	50.5	10.9	0.0
LnGrp LOS	C		C	C		C	C		B	D	B	
Approach Vol, veh/h		238			160			363			152	
Approach Delay, s/veh		25.3			24.1			14.1			11.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	26.0	7.0	11.0	7.8	23.0	8.0	10.1
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	18.5	5.0	18.5	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	7.1	3.4	6.0	4.1	4.6	4.4	4.7
Green Ext Time (p_c), s	0.0	1.1	0.0	0.5	0.0	0.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	700	28	7	854	24	181	71	14	36	53	365
Future Volume (veh/h)	76	700	28	7	854	24	181	71	14	36	53	365
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	83	761	30	8	928	26	197	77	15	39	58	397
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	104	797	31	101	803	23	213	75	12	74	87	482
Arrive On Green	0.06	0.45	0.45	0.06	0.45	0.45	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1780	70	1774	1803	51	421	217	35	90	251	1396
Grp Volume(v), veh/h	83	0	791	8	0	954	289	0	0	494	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1850	1774	0	1854	673	0	0	1737	0	0
Q Serve(g_s), s	4.2	0.0	37.1	0.4	0.0	40.1	7.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.2	0.0	37.1	0.4	0.0	40.1	31.1	0.0	0.0	23.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.68		0.05	0.08		0.80
Lane Grp Cap(c), veh/h	104	0	829	101	0	826	300	0	0	643	0	0
V/C Ratio(X)	0.79	0.00	0.95	0.08	0.00	1.15	0.96	0.00	0.00	0.77	0.00	0.00
Avail Cap(c_a), veh/h	104	0	829	101	0	826	300	0	0	643	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.8	0.0	24.0	40.2	0.0	25.0	33.8	0.0	0.0	27.3	0.0	0.0
Incr Delay (d2), s/veh	33.2	0.0	22.0	0.3	0.0	83.3	42.2	0.0	0.0	5.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	24.0	0.2	0.0	39.5	10.7	0.0	0.0	12.3	0.0	0.0
LnGrp Delay(d),s/veh	75.0	0.0	46.0	40.6	0.0	108.3	76.1	0.0	0.0	32.9	0.0	0.0
LnGrp LOS	E		D	D		F	E			C		
Approach Vol, veh/h		874			962			289			494	
Approach Delay, s/veh		48.7			107.7			76.1			32.9	
Approach LOS		D			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.6	9.6	44.8		35.6	9.8	44.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.1	5.1	40.3		31.1	5.3	40.1
Max Q Clear Time (g_c+I1), s		33.1	2.4	39.1		25.8	6.2	42.1
Green Ext Time (p_c), s		0.0	0.0	0.6		1.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	70.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	678	49	26	766	33	56	267	40	36	115	47
Future Volume (veh/h)	33	678	49	26	766	33	56	267	40	36	115	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	36	737	53	28	833	36	61	290	43	39	125	51
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	58	1589	114	158	940	41	283	321	48	166	243	99
Arrive On Green	0.03	0.47	0.47	0.09	0.53	0.53	0.04	0.20	0.20	0.03	0.19	0.19
Sat Flow, veh/h	1774	3349	241	1774	1773	77	1774	1586	235	1774	1259	514
Grp Volume(v), veh/h	36	389	401	28	0	869	61	0	333	39	0	176
Grp Sat Flow(s),veh/h/ln	1774	1770	1820	1774	0	1849	1774	0	1821	1774	0	1772
Q Serve(g_s), s	1.8	13.3	13.4	1.3	0.0	37.5	2.4	0.0	16.1	1.6	0.0	8.0
Cycle Q Clear(g_c), s	1.8	13.3	13.4	1.3	0.0	37.5	2.4	0.0	16.1	1.6	0.0	8.0
Prop In Lane	1.00		0.13	1.00		0.04	1.00		0.13	1.00		0.29
Lane Grp Cap(c), veh/h	58	840	864	158	0	981	283	0	368	166	0	342
V/C Ratio(X)	0.62	0.46	0.46	0.18	0.00	0.89	0.22	0.00	0.90	0.23	0.00	0.51
Avail Cap(c_a), veh/h	101	840	864	158	0	981	306	0	378	205	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	15.9	15.9	38.0	0.0	18.7	27.5	0.0	35.1	28.8	0.0	32.5
Incr Delay (d2), s/veh	10.1	1.8	1.8	0.5	0.0	11.6	0.4	0.0	24.1	0.7	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.9	7.1	0.7	0.0	22.0	1.2	0.0	10.5	0.8	0.0	4.0
LnGrp Delay(d),s/veh	53.0	17.8	17.7	38.5	0.0	30.4	27.9	0.0	59.2	29.5	0.0	33.7
LnGrp LOS	D	B	B	D		C	C		E	C		C
Approach Vol, veh/h		826			897			394			215	
Approach Delay, s/veh		19.3			30.6			54.3			32.9	
Approach LOS		B			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	7.6	22.7	12.5	47.2	8.4	21.9	7.5	52.2
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	5.1	18.7	5.5	42.7	5.1	18.7	5.1	43.1
Max Q Clear Time (g_c+I1), s	3.6	18.1	3.3	15.4	4.4	10.0	3.8	39.5
Green Ext Time (p_c), s	0.0	0.1	0.0	4.7	0.0	0.5	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	565	53	74	713	98	78	255	74	138	186	22
Future Volume (veh/h)	84	565	53	74	713	98	78	255	74	138	186	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	91	614	58	80	775	107	85	277	80	150	202	24
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	148	1121	501	360	1543	690	168	329	279	185	432	367
Arrive On Green	0.08	0.32	0.32	0.20	0.44	0.44	0.05	0.18	0.18	0.10	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	91	614	58	80	775	107	85	277	80	150	202	24
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.5	12.9	1.8	3.4	14.2	2.3	2.2	12.9	3.9	7.4	8.4	1.1
Cycle Q Clear(g_c), s	4.5	12.9	1.8	3.4	14.2	2.3	2.2	12.9	3.9	7.4	8.4	1.1
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	148	1121	501	360	1543	690	168	329	279	185	432	367
V/C Ratio(X)	0.62	0.55	0.12	0.22	0.50	0.15	0.50	0.84	0.29	0.81	0.47	0.07
Avail Cap(c_a), veh/h	148	1121	501	360	1543	690	210	445	378	286	631	537
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	39.9	25.4	13.3	30.0	18.3	6.2	41.7	35.9	32.1	39.5	29.8	27.0
Incr Delay (d2), s/veh	17.7	1.9	0.5	0.3	0.3	0.1	2.3	10.4	0.6	9.6	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.6	1.0	1.7	6.9	1.5	1.1	7.6	1.8	4.2	4.4	0.5
LnGrp Delay(d),s/veh	57.5	27.4	13.8	30.3	18.6	6.4	44.1	46.3	32.7	49.1	30.6	27.0
LnGrp LOS	E	C	B	C	B	A	D	D	C	D	C	C
Approach Vol, veh/h		763			962			442			376	
Approach Delay, s/veh		29.9			18.2			43.4			37.7	
Approach LOS		C			B			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	13.9	20.4	22.7	33.0	8.9	25.4	12.0	43.7
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	14.5	21.5	7.5	28.5	5.5	30.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	9.4	14.9	5.4	14.9	4.2	10.4	6.5	16.2
Green Ext Time (p_c), s	0.2	0.9	0.0	3.3	0.0	1.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	23	25	19	26	39	29	359	14	19	267	21
Future Vol, veh/h	107	23	25	19	26	39	29	359	14	19	267	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	116	25	27	21	28	42	32	390	15	21	290	23
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	11.9	10.5	18.2	14.5
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	69%	23%	100%	0%
Vol Thru, %	0%	96%	15%	31%	0%	93%
Vol Right, %	0%	4%	16%	46%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	373	155	84	19	288
LT Vol	29	0	107	19	19	0
Through Vol	0	359	23	26	0	267
RT Vol	0	14	25	39	0	21
Lane Flow Rate	32	405	168	91	21	313
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.055	0.653	0.293	0.157	0.037	0.514
Departure Headway (Hd)	6.333	5.799	6.262	6.207	6.465	5.906
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	565	620	571	574	553	610
Service Time	4.081	3.548	4.331	4.285	4.217	3.658
HCM Lane V/C Ratio	0.057	0.653	0.294	0.159	0.038	0.513
HCM Control Delay	9.5	18.9	11.9	10.5	9.5	14.8
HCM Lane LOS	A	C	B	B	A	B
HCM 95th-tile Q	0.2	4.8	1.2	0.6	0.1	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	82	71	53	103	7	79	264	34	4	159	0
Future Volume (veh/h)	97	82	71	53	103	7	79	264	34	4	159	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	105	89	77	58	112	8	86	287	37	4	173	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	136	132	114	98	209	15	124	704	91	10	691	0
Arrive On Green	0.08	0.14	0.14	0.06	0.12	0.12	0.07	0.44	0.44	0.01	0.37	0.00
Sat Flow, veh/h	1774	923	799	1774	1718	123	1774	1617	209	1774	1863	0
Grp Volume(v), veh/h	105	0	166	58	0	120	86	0	324	4	173	0
Grp Sat Flow(s),veh/h/ln	1774	0	1722	1774	0	1841	1774	0	1826	1774	1863	0
Q Serve(g_s), s	2.9	0.0	4.6	1.6	0.0	3.1	2.4	0.0	6.1	0.1	3.2	0.0
Cycle Q Clear(g_c), s	2.9	0.0	4.6	1.6	0.0	3.1	2.4	0.0	6.1	0.1	3.2	0.0
Prop In Lane	1.00		0.46	1.00		0.07	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	136	0	246	98	0	224	124	0	795	10	691	0
V/C Ratio(X)	0.77	0.00	0.67	0.59	0.00	0.54	0.69	0.00	0.41	0.42	0.25	0.00
Avail Cap(c_a), veh/h	196	0	639	178	0	664	178	0	795	178	691	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	20.3	23.0	0.0	20.6	22.7	0.0	9.7	24.7	10.9	0.0
Incr Delay (d2), s/veh	10.9	0.0	3.2	5.5	0.0	2.0	6.8	0.0	1.5	26.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.4	0.9	0.0	1.7	1.4	0.0	3.4	0.1	1.8	0.0
LnGrp Delay(d),s/veh	33.5	0.0	23.5	28.5	0.0	22.6	29.5	0.0	11.2	51.1	11.7	0.0
LnGrp LOS	C		C	C		C	C		B	D	B	
Approach Vol, veh/h		271			178			410			177	
Approach Delay, s/veh		27.4			24.5			15.0			12.6	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	26.2	7.3	11.6	8.0	23.0	8.3	10.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	8.1	3.6	6.6	4.4	5.2	4.9	5.1
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	0.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	650	36	0	848	0	51
Future Vol, veh/h	650	36	0	848	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	707	39	0	922	0	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	727
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	423
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	423
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	423	-	-	-
HCM Lane V/C Ratio	0.131	-	-	-
HCM Control Delay (s)	14.8	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	17	17	391	277	36
Future Vol, veh/h	17	17	17	391	277	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	18	18	18	425	301	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	782	321	340	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	363	720	1219	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	356	720	1219	-	-	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1219	-	476	-	-
HCM Lane V/C Ratio	0.015	-	0.078	-	-
HCM Control Delay (s)	8	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	769	28	7	877	28	181	71	14	47	53	365
Future Volume (veh/h)	76	769	28	7	877	28	181	71	14	47	53	365
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	83	836	30	8	953	30	197	77	15	51	58	397
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	104	800	29	101	800	25	212	75	12	87	86	471
Arrive On Green	0.06	0.45	0.45	0.06	0.45	0.45	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1787	64	1774	1796	57	420	217	35	125	249	1362
Grp Volume(v), veh/h	83	0	866	8	0	983	289	0	0	506	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1851	1774	0	1853	671	0	0	1736	0	0
Q Serve(g_s), s	4.2	0.0	40.3	0.4	0.0	40.1	6.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.2	0.0	40.3	0.4	0.0	40.1	31.1	0.0	0.0	24.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.03	0.68		0.05	0.10		0.78
Lane Grp Cap(c), veh/h	104	0	829	101	0	826	299	0	0	644	0	0
V/C Ratio(X)	0.79	0.00	1.04	0.08	0.00	1.19	0.97	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	104	0	829	101	0	826	299	0	0	644	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.8	0.0	24.9	40.2	0.0	25.0	33.7	0.0	0.0	27.5	0.0	0.0
Incr Delay (d2), s/veh	33.2	0.0	43.5	0.3	0.0	97.8	42.7	0.0	0.0	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	30.5	0.2	0.0	42.8	10.7	0.0	0.0	12.7	0.0	0.0
LnGrp Delay(d),s/veh	75.0	0.0	68.4	40.6	0.0	122.7	76.3	0.0	0.0	33.9	0.0	0.0
LnGrp LOS	E		F	D		F	E			C		
Approach Vol, veh/h		949			991			289			506	
Approach Delay, s/veh		69.0			122.1			76.3			33.9	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.6	9.6	44.8		35.6	9.8	44.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.1	5.1	40.3		31.1	5.3	40.1
Max Q Clear Time (g_c+I1), s		33.1	2.4	42.3		26.5	6.2	42.1
Green Ext Time (p_c), s		0.0	0.0	0.0		1.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	82.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	758	49	26	793	33	56	267	40	36	115	47
Future Volume (veh/h)	33	758	49	26	793	33	56	267	40	36	115	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	36	824	53	28	862	36	61	290	43	39	125	51
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	58	1602	103	158	942	39	283	321	48	166	243	99
Arrive On Green	0.03	0.47	0.47	0.09	0.53	0.53	0.04	0.20	0.20	0.03	0.19	0.19
Sat Flow, veh/h	1774	3377	217	1774	1776	74	1774	1586	235	1774	1259	514
Grp Volume(v), veh/h	36	432	445	28	0	898	61	0	333	39	0	176
Grp Sat Flow(s),veh/h/ln	1774	1770	1824	1774	0	1850	1774	0	1821	1774	0	1772
Q Serve(g_s), s	1.8	15.3	15.3	1.3	0.0	39.9	2.4	0.0	16.1	1.6	0.0	8.0
Cycle Q Clear(g_c), s	1.8	15.3	15.3	1.3	0.0	39.9	2.4	0.0	16.1	1.6	0.0	8.0
Prop In Lane	1.00		0.12	1.00		0.04	1.00		0.13	1.00		0.29
Lane Grp Cap(c), veh/h	58	840	866	158	0	981	283	0	368	166	0	342
V/C Ratio(X)	0.62	0.51	0.51	0.18	0.00	0.92	0.22	0.00	0.90	0.23	0.00	0.51
Avail Cap(c_a), veh/h	101	840	866	158	0	981	306	0	378	205	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	16.4	16.4	38.0	0.0	19.3	27.5	0.0	35.1	28.8	0.0	32.5
Incr Delay (d2), s/veh	10.1	2.2	2.2	0.5	0.0	14.4	0.4	0.0	24.1	0.7	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	8.0	8.2	0.7	0.0	24.1	1.2	0.0	10.5	0.8	0.0	4.0
LnGrp Delay(d),s/veh	53.0	18.7	18.6	38.5	0.0	33.7	27.9	0.0	59.2	29.5	0.0	33.7
LnGrp LOS	D	B	B	D		C	C		E	C		C
Approach Vol, veh/h		913			926			394			215	
Approach Delay, s/veh		20.0			33.9			54.3			32.9	
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	7.6	22.7	12.5	47.2	8.4	21.9	7.5	52.2
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	5.1	18.7	5.5	42.7	5.1	18.7	5.1	43.1
Max Q Clear Time (g_c+I1), s	3.6	18.1	3.3	17.3	4.4	10.0	3.8	41.9
Green Ext Time (p_c), s	0.0	0.1	0.0	5.3	0.0	0.5	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	622	64	74	732	98	82	255	74	138	186	26
Future Volume (veh/h)	95	622	64	74	732	98	82	255	74	138	186	26
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	103	676	70	80	796	107	89	277	80	150	202	28
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	148	1121	501	360	1543	690	171	329	279	185	430	366
Arrive On Green	0.08	0.32	0.32	0.20	0.44	0.44	0.05	0.18	0.18	0.10	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	103	676	70	80	796	107	89	277	80	150	202	28
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.1	14.5	2.2	3.4	14.7	2.3	2.3	12.9	3.9	7.4	8.4	1.2
Cycle Q Clear(g_c), s	5.1	14.5	2.2	3.4	14.7	2.3	2.3	12.9	3.9	7.4	8.4	1.2
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	148	1121	501	360	1543	690	171	329	279	185	430	366
V/C Ratio(X)	0.70	0.60	0.14	0.22	0.52	0.15	0.52	0.84	0.29	0.81	0.47	0.08
Avail Cap(c_a), veh/h	148	1121	501	360	1543	690	210	445	378	286	631	537
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	40.1	26.0	13.4	30.0	18.5	6.2	41.7	35.9	32.1	39.5	29.8	27.1
Incr Delay (d2), s/veh	23.8	2.4	0.6	0.3	0.3	0.1	2.5	10.4	0.6	9.6	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.4	1.2	1.7	7.3	1.5	1.1	7.6	1.8	4.2	4.4	0.6
LnGrp Delay(d),s/veh	64.0	28.4	14.0	30.3	18.8	6.4	44.2	46.3	32.7	49.1	30.6	27.2
LnGrp LOS	E	C	B	C	B	A	D	D	C	D	C	C
Approach Vol, veh/h		849			983			446			380	
Approach Delay, s/veh		31.5			18.3			43.4			37.7	
Approach LOS		C			B			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	13.9	20.4	22.7	33.0	9.0	25.3	12.0	43.7
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	14.5	21.5	7.5	28.5	5.5	30.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	9.4	14.9	5.4	16.5	4.3	10.4	7.1	16.7
Green Ext Time (p_c), s	0.2	0.9	0.0	3.5	0.0	1.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	23	25	19	26	39	29	370	14	19	271	21
Future Vol, veh/h	107	23	25	19	26	39	29	370	14	19	271	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	116	25	27	21	28	42	32	402	15	21	295	23
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12	10.5	19.1	14.8
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	69%	23%	100%	0%
Vol Thru, %	0%	96%	15%	31%	0%	93%
Vol Right, %	0%	4%	16%	46%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	384	155	84	19	292
LT Vol	29	0	107	19	19	0
Through Vol	0	370	23	26	0	271
RT Vol	0	14	25	39	0	21
Lane Flow Rate	32	417	168	91	21	317
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.056	0.674	0.295	0.159	0.037	0.523
Departure Headway (Hd)	6.349	5.816	6.311	6.26	6.492	5.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	622	566	569	550	606
Service Time	4.098	3.565	4.384	4.342	4.246	3.687
HCM Lane V/C Ratio	0.057	0.67	0.297	0.16	0.038	0.523
HCM Control Delay	9.5	19.8	12	10.5	9.5	15.1
HCM Lane LOS	A	C	B	B	A	C
HCM 95th-tile Q	0.2	5.1	1.2	0.6	0.1	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	82	71	53	103	7	79	268	34	4	170	0
Future Volume (veh/h)	97	82	71	53	103	7	79	268	34	4	170	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	105	89	77	58	112	8	86	291	37	4	185	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	136	132	114	98	209	15	124	705	90	10	691	0
Arrive On Green	0.08	0.14	0.14	0.06	0.12	0.12	0.07	0.44	0.44	0.01	0.37	0.00
Sat Flow, veh/h	1774	923	799	1774	1718	123	1774	1620	206	1774	1863	0
Grp Volume(v), veh/h	105	0	166	58	0	120	86	0	328	4	185	0
Grp Sat Flow(s),veh/h/ln	1774	0	1722	1774	0	1841	1774	0	1826	1774	1863	0
Q Serve(g_s), s	2.9	0.0	4.6	1.6	0.0	3.1	2.4	0.0	6.2	0.1	3.5	0.0
Cycle Q Clear(g_c), s	2.9	0.0	4.6	1.6	0.0	3.1	2.4	0.0	6.2	0.1	3.5	0.0
Prop In Lane	1.00		0.46	1.00		0.07	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	136	0	246	98	0	224	124	0	795	10	691	0
V/C Ratio(X)	0.77	0.00	0.67	0.59	0.00	0.54	0.69	0.00	0.41	0.42	0.27	0.00
Avail Cap(c_a), veh/h	196	0	639	178	0	664	178	0	795	178	691	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	20.3	23.0	0.0	20.6	22.7	0.0	9.7	24.7	11.0	0.0
Incr Delay (d2), s/veh	10.9	0.0	3.2	5.5	0.0	2.0	6.8	0.0	1.6	26.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.4	0.9	0.0	1.7	1.4	0.0	3.4	0.1	1.9	0.0
LnGrp Delay(d),s/veh	33.5	0.0	23.5	28.5	0.0	22.6	29.5	0.0	11.3	51.1	11.9	0.0
LnGrp LOS	C		C	C		C	C		B	D	B	
Approach Vol, veh/h		271			178			414			189	
Approach Delay, s/veh		27.4			24.5			15.1			12.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	26.2	7.3	11.6	8.0	23.0	8.3	10.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	8.2	3.6	6.6	4.4	5.5	4.9	5.1
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	0.7	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	730	36	0	875	0	51
Future Vol, veh/h	730	36	0	875	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	793	39	0	951	0	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	813
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	377
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	377	-	-	-
HCM Lane V/C Ratio	0.147	-	-	-
HCM Control Delay (s)	16.2	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	17	17	395	288	36
Future Vol, veh/h	17	17	17	395	288	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	18	18	18	429	313	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	798	333	352	0	-	0
Stage 1	333	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	355	709	1207	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	709	1207	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1207	-	467	-	-
HCM Lane V/C Ratio	0.015	-	0.079	-	-
HCM Control Delay (s)	8	0	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	678	49	26	766	33	56	267	40	36	115	47
Future Volume (veh/h)	33	678	49	26	766	33	56	267	40	36	115	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	36	737	53	28	833	36	61	290	43	39	125	51
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
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	58	1589	114	158	1833	79	283	321	48	166	243	99
Arrive On Green	0.03	0.47	0.47	0.09	0.53	0.53	0.04	0.20	0.20	0.03	0.19	0.19
Sat Flow, veh/h	1774	3349	241	1774	3457	149	1774	1586	235	1774	1259	514
Grp Volume(v), veh/h	36	389	401	28	426	443	61	0	333	39	0	176
Grp Sat Flow(s),veh/h/ln	1774	1770	1820	1774	1770	1836	1774	0	1821	1774	0	1772
Q Serve(g_s), s	1.8	13.3	13.4	1.3	13.4	13.4	2.4	0.0	16.1	1.6	0.0	8.0
Cycle Q Clear(g_c), s	1.8	13.3	13.4	1.3	13.4	13.4	2.4	0.0	16.1	1.6	0.0	8.0
Prop In Lane	1.00		0.13	1.00		0.08	1.00		0.13	1.00		0.29
Lane Grp Cap(c), veh/h	58	840	864	158	938	974	283	0	368	166	0	342
V/C Ratio(X)	0.62	0.46	0.46	0.18	0.45	0.45	0.22	0.00	0.90	0.23	0.00	0.51
Avail Cap(c_a), veh/h	101	840	864	158	938	974	306	0	378	205	0	368
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	0.00	1.00
Uniform Delay (d), s/veh	43.0	15.9	15.9	38.0	13.1	13.1	27.5	0.0	35.1	28.8	0.0	32.5
Incr Delay (d2), s/veh	10.1	1.8	1.8	0.5	1.6	1.5	0.4	0.0	24.1	0.7	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.9	7.1	0.7	6.9	7.2	1.2	0.0	10.5	0.8	0.0	4.0
LnGrp Delay(d),s/veh	53.0	17.8	17.7	38.5	14.7	14.6	27.9	0.0	59.2	29.5	0.0	33.7
LnGrp LOS	D	B	B	D	B	B	C		E	C		C
Approach Vol, veh/h		826			897			394			215	
Approach Delay, s/veh		19.3			15.4			54.3			32.9	
Approach LOS		B			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	7.6	22.7	12.5	47.2	8.4	21.9	7.5	52.2
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	5.1	18.7	5.5	42.7	5.1	18.7	5.1	43.1
Max Q Clear Time (g_c+I1), s	3.6	18.1	3.3	15.4	4.4	10.0	3.8	15.4
Green Ext Time (p_c), s	0.0	0.1	0.0	4.7	0.0	0.5	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	769	28	7	877	28	181	71	14	47	53	365
Future Volume (veh/h)	76	769	28	7	877	28	181	71	14	47	53	365
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	83	836	30	8	953	30	197	77	15	51	58	397
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	0
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	104	800	29	101	1561	49	212	75	12	87	86	471
Arrive On Green	0.06	0.45	0.45	0.06	0.45	0.45	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1787	64	1774	3503	110	420	217	35	125	249	1362
Grp Volume(v), veh/h	83	0	866	8	481	502	289	0	0	506	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1851	1774	1770	1843	671	0	0	1736	0	0
Q Serve(g_s), s	4.2	0.0	40.3	0.4	18.7	18.7	6.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.2	0.0	40.3	0.4	18.7	18.7	31.1	0.0	0.0	24.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.06	0.68		0.05	0.10		0.78
Lane Grp Cap(c), veh/h	104	0	829	101	788	821	299	0	0	644	0	0
V/C Ratio(X)	0.79	0.00	1.04	0.08	0.61	0.61	0.97	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	104	0	829	101	788	821	299	0	0	644	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.8	0.0	24.9	40.2	19.0	19.0	33.7	0.0	0.0	27.5	0.0	0.0
Incr Delay (d2), s/veh	33.2	0.0	43.5	0.3	3.5	3.4	42.7	0.0	0.0	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	30.5	0.2	9.9	10.2	10.7	0.0	0.0	12.7	0.0	0.0
LnGrp Delay(d),s/veh	75.0	0.0	68.4	40.6	22.5	22.4	76.3	0.0	0.0	33.9	0.0	0.0
LnGrp LOS	E		F	D	C	C	E			C		
Approach Vol, veh/h		949			991			289			506	
Approach Delay, s/veh		69.0			22.6			76.3			33.9	
Approach LOS		E			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.6	9.6	44.8		35.6	9.8	44.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.1	5.1	40.3		31.1	5.3	40.1
Max Q Clear Time (g_c+I1), s		33.1	2.4	42.3		26.5	6.2	20.7
Green Ext Time (p_c), s		0.0	0.0	0.0		1.4	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	812	67	42	643	34	18	43	14	15	95	30
Future Volume (veh/h)	66	812	67	42	643	34	18	43	14	15	95	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	72	883	73	46	699	37	20	47	15	16	103	33
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	92	919	76	313	1167	62	86	134	37	62	144	43
Arrive On Green	0.05	0.54	0.54	0.18	0.67	0.67	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	1698	140	1774	1754	93	265	1179	323	106	1267	381
Grp Volume(v), veh/h	72	0	956	46	0	736	82	0	0	152	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1838	1774	0	1846	1768	0	0	1754	0	0
Q Serve(g_s), s	3.2	0.0	39.8	1.8	0.0	17.7	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	39.8	1.8	0.0	17.7	3.4	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.05	0.24		0.18	0.11		0.22
Lane Grp Cap(c), veh/h	92	0	995	313	0	1229	257	0	0	249	0	0
V/C Ratio(X)	0.78	0.00	0.96	0.15	0.00	0.60	0.32	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	140	0	995	313	0	1229	439	0	0	443	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	17.5	27.8	0.0	7.4	32.9	0.0	0.0	34.4	0.0	0.0
Incr Delay (d2), s/veh	14.4	0.0	20.5	0.2	0.0	2.2	0.7	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	25.6	0.9	0.0	9.5	1.7	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	51.9	0.0	38.1	28.1	0.0	9.6	33.6	0.0	0.0	36.8	0.0	0.0
LnGrp LOS	D		D	C		A	C			D		
Approach Vol, veh/h		1028			782			82			152	
Approach Delay, s/veh		39.1			10.7			33.6			36.8	
Approach LOS		D			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.6	18.6	47.8		13.6	8.7	57.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.1	5.1	43.3		18.1	6.3	42.1
Max Q Clear Time (g_c+I1), s		5.4	3.8	41.8		8.7	5.2	19.7
Green Ext Time (p_c), s		0.2	0.0	1.0		0.4	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	741	56	80	641	51	25	68	16	23	88	30
Future Volume (veh/h)	46	741	56	80	641	51	25	68	16	23	88	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	50	805	61	87	697	55	27	74	17	25	96	33
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	401	1221	93	498	718	57	148	113	26	216	132	45
Arrive On Green	0.23	0.37	0.37	0.28	0.42	0.42	0.03	0.08	0.08	0.05	0.10	0.10
Sat Flow, veh/h	1774	3335	253	1774	1705	135	1774	1466	337	1774	1326	456
Grp Volume(v), veh/h	50	427	439	87	0	752	27	0	91	25	0	129
Grp Sat Flow(s),veh/h/ln	1774	1770	1818	1774	0	1839	1774	0	1803	1774	0	1782
Q Serve(g_s), s	1.8	16.1	16.1	3.0	0.0	32.0	0.0	0.0	3.9	0.0	0.0	5.6
Cycle Q Clear(g_c), s	1.8	16.1	16.1	3.0	0.0	32.0	0.0	0.0	3.9	0.0	0.0	5.6
Prop In Lane	1.00		0.14	1.00		0.07	1.00		0.19	1.00		0.26
Lane Grp Cap(c), veh/h	401	648	666	498	0	775	148	0	139	216	0	178
V/C Ratio(X)	0.12	0.66	0.66	0.17	0.00	0.97	0.18	0.00	0.66	0.12	0.00	0.73
Avail Cap(c_a), veh/h	401	648	666	498	0	775	211	0	408	239	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	21.2	21.2	21.7	0.0	22.7	37.7	0.0	35.9	34.6	0.0	35.0
Incr Delay (d2), s/veh	0.1	5.2	5.1	0.2	0.0	25.9	0.6	0.0	5.2	0.2	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.8	9.0	1.5	0.0	21.7	0.6	0.0	2.1	0.5	0.0	3.0
LnGrp Delay(d),s/veh	24.8	26.4	26.2	21.9	0.0	48.6	38.3	0.0	41.1	34.8	0.0	40.5
LnGrp LOS	C	C	C	C		D	D		D	C		D
Approach Vol, veh/h		916			839			118			154	
Approach Delay, s/veh		26.2			45.8			40.4			39.6	
Approach LOS		C			D			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	8.6	10.7	27.0	33.8	6.8	12.5	22.6	38.2
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	5.1	18.1	9.5	29.3	5.1	18.1	5.1	33.7
Max Q Clear Time (g_c+I1), s	2.0	5.9	5.0	18.1	2.0	7.6	3.8	34.0
Green Ext Time (p_c), s	0.0	0.3	0.1	3.8	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	738	29	93	666	65	72	77	167	111	129	23
Future Volume (veh/h)	5	738	29	93	666	65	72	77	167	111	129	23
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	5	802	32	101	724	71	78	84	182	121	140	25
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	621	1106	495	528	922	412	204	146	124	153	196	167
Arrive On Green	0.35	0.31	0.31	0.30	0.26	0.26	0.06	0.08	0.08	0.09	0.11	0.11
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	5	802	32	101	724	71	78	84	182	121	140	25
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.1	16.1	1.1	3.4	15.2	2.0	1.7	3.5	3.5	5.3	5.8	1.1
Cycle Q Clear(g_c), s	0.1	16.1	1.1	3.4	15.2	2.0	1.7	3.5	3.5	5.3	5.8	1.1
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	621	1106	495	528	922	412	204	146	124	153	196	167
V/C Ratio(X)	0.01	0.73	0.06	0.19	0.79	0.17	0.38	0.58	1.47	0.79	0.71	0.15
Avail Cap(c_a), veh/h	621	1106	495	528	1261	564	224	419	356	233	543	461
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	16.9	24.4	19.3	20.9	27.5	12.2	36.2	35.6	11.4	35.8	34.6	32.5
Incr Delay (d2), s/veh	0.0	4.2	0.3	0.2	2.3	0.2	1.2	3.6	221.8	9.8	4.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.4	0.5	1.7	7.7	1.2	0.9	1.9	10.1	3.0	3.3	0.5
LnGrp Delay(d),s/veh	17.0	28.6	19.5	21.1	29.8	12.4	37.4	39.2	233.1	45.6	39.4	32.9
LnGrp LOS	B	C	B	C	C	B	D	D	F	D	D	C
Approach Vol, veh/h		839			896			344			286	
Approach Delay, s/veh		28.2			27.5			141.4			41.5	
Approach LOS		C			C			F			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	11.4	10.8	28.3	29.5	9.3	12.9	32.5	25.3
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	10.5	18.0	8.5	25.0	5.2	23.3	5.0	28.5
Max Q Clear Time (g_c+I1), s	7.3	5.5	5.4	18.1	3.7	7.8	2.1	17.2
Green Ext Time (p_c), s	0.1	0.8	0.1	2.8	0.0	0.6	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	11	12	7	2	6	6	123	5	13	209	14
Future Vol, veh/h	14	11	12	7	2	6	6	123	5	13	209	14
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	15	12	13	8	2	7	7	134	5	14	227	15
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.1	7.9	8.7	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	38%	47%	100%	0%
Vol Thru, %	0%	96%	30%	13%	0%	94%
Vol Right, %	0%	4%	32%	40%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	128	37	15	13	223
LT Vol	6	0	14	7	13	0
Through Vol	0	123	11	2	0	209
RT Vol	0	5	12	6	0	14
Lane Flow Rate	7	139	40	16	14	242
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.187	0.054	0.022	0.02	0.314
Departure Headway (Hd)	5.37	4.841	4.79	4.796	5.207	4.662
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	669	744	751	749	679	761
Service Time	3.083	2.554	2.799	2.808	3.001	2.455
HCM Lane V/C Ratio	0.01	0.187	0.053	0.021	0.021	0.318
HCM Control Delay	8.1	8.7	8.1	7.9	8.1	9.6
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.7	0.2	0.1	0.1	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	59	97	54	21	4	32	249	18	4	232	0
Future Volume (veh/h)	57	59	97	54	21	4	32	249	18	4	232	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	64	105	59	23	4	35	271	20	4	252	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	104	92	151	101	222	39	69	717	53	10	717	0
Arrive On Green	0.06	0.15	0.15	0.06	0.14	0.14	0.04	0.42	0.42	0.01	0.38	0.00
Sat Flow, veh/h	1774	636	1043	1774	1546	269	1774	1714	126	1774	1863	0
Grp Volume(v), veh/h	62	0	169	59	0	27	35	0	291	4	252	0
Grp Sat Flow(s),veh/h/ln	1774	0	1679	1774	0	1815	1774	0	1840	1774	1863	0
Q Serve(g_s), s	1.6	0.0	4.6	1.6	0.0	0.6	0.9	0.0	5.3	0.1	4.6	0.0
Cycle Q Clear(g_c), s	1.6	0.0	4.6	1.6	0.0	0.6	0.9	0.0	5.3	0.1	4.6	0.0
Prop In Lane	1.00		0.62	1.00		0.15	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	104	0	244	101	0	260	69	0	770	10	717	0
V/C Ratio(X)	0.60	0.00	0.69	0.59	0.00	0.10	0.51	0.00	0.38	0.42	0.35	0.00
Avail Cap(c_a), veh/h	203	0	629	203	0	680	185	0	770	185	717	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.1	0.0	19.5	22.1	0.0	17.9	22.7	0.0	9.7	23.8	10.5	0.0
Incr Delay (d2), s/veh	5.4	0.0	3.5	5.3	0.0	0.2	5.7	0.0	1.4	26.3	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.4	0.9	0.0	0.3	0.6	0.0	3.0	0.1	2.6	0.0
LnGrp Delay(d),s/veh	27.5	0.0	23.0	27.5	0.0	18.1	28.3	0.0	11.1	50.1	11.9	0.0
LnGrp LOS	C		C	C		B	C		B	D	B	
Approach Vol, veh/h		231			86			326			256	
Approach Delay, s/veh		24.2			24.5			12.9			12.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	24.6	7.2	11.5	6.4	23.0	7.3	11.4
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	18.5	5.5	18.0	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	7.3	3.6	6.6	2.9	6.6	3.6	2.6
Green Ext Time (p_c), s	0.0	1.1	0.0	0.6	0.0	1.0	0.0	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)	73	916	74	50	728	42	20	47	19	21	105	33
Future Volume (veh/h)	73	916	74	50	728	42	20	47	19	21	105	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	79	996	80	54	791	46	22	51	21	23	114	36
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	101	921	74	290	1129	66	88	141	50	69	156	46
Arrive On Green	0.06	0.54	0.54	0.16	0.65	0.65	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1774	1702	137	1774	1743	101	254	1117	394	143	1237	363
Grp Volume(v), veh/h	79	0	1076	54	0	837	94	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1839	1774	0	1845	1765	0	0	1742	0	0
Q Serve(g_s), s	3.5	0.0	43.3	2.1	0.0	23.4	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	43.3	2.1	0.0	23.4	3.9	0.0	0.0	7.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.05	0.23		0.22	0.13		0.21
Lane Grp Cap(c), veh/h	101	0	995	290	0	1195	279	0	0	271	0	0
V/C Ratio(X)	0.78	0.00	1.08	0.19	0.00	0.70	0.34	0.00	0.00	0.64	0.00	0.00
Avail Cap(c_a), veh/h	140	0	995	290	0	1195	439	0	0	442	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.2	0.0	18.4	28.9	0.0	9.1	32.2	0.0	0.0	33.8	0.0	0.0
Incr Delay (d2), s/veh	17.1	0.0	53.1	0.3	0.0	3.4	0.7	0.0	0.0	2.5	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	2.2	0.0	36.2	1.1	0.0	12.8	2.0	0.0	0.0	3.9	0.0	0.0
LnGrp Delay(d),s/veh	54.3	0.0	71.5	29.2	0.0	12.5	32.9	0.0	0.0	36.3	0.0	0.0
LnGrp LOS	D		F	C		B	C			D		
Approach Vol, veh/h		1155			891			94			173	
Approach Delay, s/veh		70.3			13.5			32.9			36.3	
Approach LOS		E			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.6	17.6	47.8		14.6	9.1	56.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.1	5.1	43.3		18.1	6.3	42.1
Max Q Clear Time (g_c+I1), s		5.9	4.1	45.3		9.7	5.5	25.4
Green Ext Time (p_c), s		0.3	0.0	0.0		0.5	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	845	62	92	734	60	28	75	23	30	97	33
Future Volume (veh/h)	51	845	62	92	734	60	28	75	23	30	97	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	918	67	100	798	65	30	82	25	33	105	36
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	384	1225	89	482	716	58	156	119	36	216	142	49
Arrive On Green	0.22	0.37	0.37	0.27	0.42	0.42	0.03	0.09	0.09	0.05	0.11	0.11
Sat Flow, veh/h	1774	3345	244	1774	1700	138	1774	1371	418	1774	1327	455
Grp Volume(v), veh/h	55	486	499	100	0	863	30	0	107	33	0	141
Grp Sat Flow(s),veh/h/ln	1774	1770	1820	1774	0	1838	1774	0	1789	1774	0	1782
Q Serve(g_s), s	2.0	19.2	19.2	3.5	0.0	33.7	0.0	0.0	4.6	0.0	0.0	6.1
Cycle Q Clear(g_c), s	2.0	19.2	19.2	3.5	0.0	33.7	0.0	0.0	4.6	0.0	0.0	6.1
Prop In Lane	1.00		0.13	1.00		0.08	1.00		0.23	1.00		0.26
Lane Grp Cap(c), veh/h	384	648	666	482	0	774	156	0	155	216	0	190
V/C Ratio(X)	0.14	0.75	0.75	0.21	0.00	1.11	0.19	0.00	0.69	0.15	0.00	0.74
Avail Cap(c_a), veh/h	384	648	666	482	0	774	216	0	405	240	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	22.1	22.1	22.5	0.0	23.2	37.4	0.0	35.5	34.8	0.0	34.7
Incr Delay (d2), s/veh	0.2	7.8	7.6	0.2	0.0	68.5	0.6	0.0	5.3	0.3	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	10.7	11.0	1.7	0.0	31.7	0.7	0.0	2.5	0.7	0.0	3.3
LnGrp Delay(d),s/veh	25.5	29.9	29.7	22.7	0.0	91.7	38.0	0.0	40.8	35.1	0.0	40.2
LnGrp LOS	C	C	C	C		F	D		D	D		D
Approach Vol, veh/h		1040			963			137			174	
Approach Delay, s/veh		29.6			84.5			40.2			39.3	
Approach LOS		C			F			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	8.5	11.4	26.2	33.8	6.9	13.0	21.8	38.2
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	5.1	18.1	9.5	29.3	5.1	18.1	5.1	33.7
Max Q Clear Time (g_c+I1), s	2.0	6.6	5.5	21.2	2.0	8.1	4.0	35.7
Green Ext Time (p_c), s	0.0	0.3	0.1	3.6	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	833	32	121	735	72	79	103	184	123	161	25
Future Volume (veh/h)	40	833	32	121	735	72	79	103	184	123	161	25
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	43	905	35	132	799	78	86	112	200	134	175	27
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	541	1106	495	485	993	444	220	176	149	168	233	198
Arrive On Green	0.31	0.31	0.31	0.27	0.28	0.28	0.06	0.09	0.09	0.09	0.13	0.13
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	43	905	35	132	799	78	86	112	200	134	175	27
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.4	18.9	1.2	4.7	16.8	2.1	1.9	4.6	4.3	5.9	7.3	1.2
Cycle Q Clear(g_c), s	1.4	18.9	1.2	4.7	16.8	2.1	1.9	4.6	4.3	5.9	7.3	1.2
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	541	1106	495	485	993	444	220	176	149	168	233	198
V/C Ratio(X)	0.08	0.82	0.07	0.27	0.80	0.18	0.39	0.64	1.34	0.80	0.75	0.14
Avail Cap(c_a), veh/h	541	1106	495	485	1261	564	224	419	356	233	543	461
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	19.8	25.4	19.3	22.8	26.7	11.0	35.9	34.9	11.9	35.5	33.8	31.1
Incr Delay (d2), s/veh	0.3	6.8	0.3	0.3	3.1	0.2	1.1	3.8	166.1	12.4	4.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	10.2	0.6	2.3	8.6	1.2	0.9	2.6	9.8	3.5	4.1	0.5
LnGrp Delay(d),s/veh	20.1	32.2	19.6	23.1	29.8	11.2	37.1	38.7	178.1	47.8	38.6	31.5
LnGrp LOS	C	C	B	C	C	B	D	D	F	D	D	C
Approach Vol, veh/h		983			1009			398			336	
Approach Delay, s/veh		31.2			27.5			108.4			41.7	
Approach LOS		C			C			F			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	12.1	12.0	26.4	29.5	9.6	14.5	28.9	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	10.5	18.0	8.5	25.0	5.2	23.3	5.0	28.5
Max Q Clear Time (g_c+I1), s	7.9	6.6	6.7	20.9	3.9	9.3	3.4	18.8
Green Ext Time (p_c), s	0.1	0.9	0.1	2.1	0.0	0.8	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	12	18	13	2	7	12	144	11	14	240	15
Future Vol, veh/h	15	12	18	13	2	7	12	144	11	14	240	15
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	16	13	20	14	2	8	13	157	12	15	261	16
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.3	8.3	9	10.3
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	59%	100%	0%
Vol Thru, %	0%	93%	27%	9%	0%	94%
Vol Right, %	0%	7%	40%	32%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	155	45	22	14	255
LT Vol	12	0	15	13	14	0
Through Vol	0	144	12	2	0	240
RT Vol	0	11	18	7	0	15
Lane Flow Rate	13	168	49	24	15	277
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.02	0.229	0.067	0.034	0.023	0.371
Departure Headway (Hd)	5.452	4.9	4.917	5.055	5.365	4.822
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	658	733	728	708	669	748
Service Time	3.176	2.624	2.947	3.088	3.086	2.543
HCM Lane V/C Ratio	0.02	0.229	0.067	0.034	0.022	0.37
HCM Control Delay	8.3	9.1	8.3	8.3	8.2	10.4
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0.1	0.9	0.2	0.1	0.1	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	65	107	60	23	4	35	284	20	4	265	0
Future Volume (veh/h)	72	65	107	60	23	4	35	284	20	4	265	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	78	71	116	65	25	4	38	309	22	4	288	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	118	100	164	106	236	38	73	708	50	10	700	0
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.04	0.41	0.41	0.01	0.38	0.00
Sat Flow, veh/h	1774	637	1041	1774	1568	251	1774	1719	122	1774	1863	0
Grp Volume(v), veh/h	78	0	187	65	0	29	38	0	331	4	288	0
Grp Sat Flow(s),veh/h/ln	1774	0	1679	1774	0	1818	1774	0	1841	1774	1863	0
Q Serve(g_s), s	2.1	0.0	5.2	1.8	0.0	0.7	1.0	0.0	6.3	0.1	5.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	5.2	1.8	0.0	0.7	1.0	0.0	6.3	0.1	5.6	0.0
Prop In Lane	1.00		0.62	1.00		0.14	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	118	0	264	106	0	273	73	0	758	10	700	0
V/C Ratio(X)	0.66	0.00	0.71	0.61	0.00	0.11	0.52	0.00	0.44	0.42	0.41	0.00
Avail Cap(c_a), veh/h	198	0	614	198	0	665	180	0	758	180	700	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	0.0	19.7	22.6	0.0	18.0	23.1	0.0	10.4	24.4	11.3	0.0
Incr Delay (d2), s/veh	6.1	0.0	3.5	5.6	0.0	0.2	5.6	0.0	1.8	26.4	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.6	1.0	0.0	0.4	0.6	0.0	3.6	0.1	3.2	0.0
LnGrp Delay(d),s/veh	28.6	0.0	23.2	28.2	0.0	18.2	28.7	0.0	12.2	50.7	13.1	0.0
LnGrp LOS	C		C	C		B	C		B	D	B	
Approach Vol, veh/h		265			94			369			292	
Approach Delay, s/veh		24.8			25.1			13.9			13.6	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	24.8	7.4	12.2	6.5	23.0	7.8	11.9
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	18.5	5.5	18.0	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	8.3	3.8	7.2	3.0	7.6	4.1	2.7
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.0	1.1	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	852	37	0	874	0	52
Future Vol, veh/h	852	37	0	874	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	926	40	0	950	0	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	946
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	316
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	316
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	316	-	-	-
HCM Lane V/C Ratio	0.179	-	-	-
HCM Control Delay (s)	18.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	18	18	349	277	37
Future Vol, veh/h	18	18	18	349	277	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	20	20	20	379	301	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	740	321	341	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	384	720	1218	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	376	720	1218	-	-	-
Mov Cap-2 Maneuver	376	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1218	-	494	-	-
HCM Lane V/C Ratio	0.016	-	0.079	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	961	74	50	805	55	20	47	19	29	105	33
Future Volume (veh/h)	73	961	74	50	805	55	20	47	19	29	105	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	79	1045	80	54	875	60	22	51	21	32	114	36
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
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	101	925	71	280	1106	76	88	148	52	80	156	45
Arrive On Green	0.06	0.54	0.54	0.16	0.64	0.64	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1774	1709	131	1774	1724	118	249	1118	393	206	1181	342
Grp Volume(v), veh/h	79	0	1125	54	0	935	94	0	0	182	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1840	1774	0	1842	1760	0	0	1728	0	0
Q Serve(g_s), s	3.5	0.0	43.3	2.1	0.0	29.5	0.0	0.0	0.0	4.3	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	43.3	2.1	0.0	29.5	3.8	0.0	0.0	8.1	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.06	0.23		0.22	0.18		0.20
Lane Grp Cap(c), veh/h	101	0	996	280	0	1182	288	0	0	282	0	0
V/C Ratio(X)	0.78	0.00	1.13	0.19	0.00	0.79	0.33	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	140	0	996	280	0	1182	439	0	0	440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.2	0.0	18.4	29.3	0.0	10.4	31.8	0.0	0.0	33.6	0.0	0.0
Incr Delay (d2), s/veh	17.1	0.0	71.3	0.3	0.0	5.4	0.7	0.0	0.0	2.5	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	2.2	0.0	41.3	1.1	0.0	16.6	2.0	0.0	0.0	4.1	0.0	0.0
LnGrp Delay(d),s/veh	54.3	0.0	89.7	29.6	0.0	15.9	32.4	0.0	0.0	36.0	0.0	0.0
LnGrp LOS	D		F	C		B	C			D		
Approach Vol, veh/h		1204			989			94			182	
Approach Delay, s/veh		87.3			16.6			32.4			36.0	
Approach LOS		F			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.1	17.1	47.8		15.1	9.1	55.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.1	5.1	43.3		18.1	6.3	42.1
Max Q Clear Time (g_c+I1), s		5.8	4.1	45.3		10.1	5.5	31.5
Green Ext Time (p_c), s		0.3	0.0	0.0		0.5	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	898	62	92	824	60	28	75	23	30	97	33
Future Volume (veh/h)	51	898	62	92	824	60	28	75	23	30	97	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	976	67	100	896	65	30	82	25	33	105	36
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
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	384	1231	84	482	723	52	156	119	36	216	142	49
Arrive On Green	0.22	0.37	0.37	0.27	0.42	0.42	0.03	0.09	0.09	0.05	0.11	0.11
Sat Flow, veh/h	1774	3361	231	1774	1716	125	1774	1371	418	1774	1327	455
Grp Volume(v), veh/h	55	514	529	100	0	961	30	0	107	33	0	141
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	0	1841	1774	0	1789	1774	0	1782
Q Serve(g_s), s	2.0	20.7	20.7	3.5	0.0	33.7	0.0	0.0	4.6	0.0	0.0	6.1
Cycle Q Clear(g_c), s	2.0	20.7	20.7	3.5	0.0	33.7	0.0	0.0	4.6	0.0	0.0	6.1
Prop In Lane	1.00		0.13	1.00		0.07	1.00		0.23	1.00		0.26
Lane Grp Cap(c), veh/h	384	648	667	482	0	775	156	0	155	216	0	190
V/C Ratio(X)	0.14	0.79	0.79	0.21	0.00	1.24	0.19	0.00	0.69	0.15	0.00	0.74
Avail Cap(c_a), veh/h	384	648	667	482	0	775	216	0	405	240	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	22.6	22.6	22.5	0.0	23.2	37.4	0.0	35.5	34.8	0.0	34.7
Incr Delay (d2), s/veh	0.2	9.6	9.4	0.2	0.0	118.6	0.6	0.0	5.3	0.3	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	11.9	12.2	1.7	0.0	42.6	0.7	0.0	2.5	0.7	0.0	3.3
LnGrp Delay(d),s/veh	25.5	32.3	32.0	22.7	0.0	141.8	38.0	0.0	40.8	35.1	0.0	40.2
LnGrp LOS	C	C	C	C		F	D		D	D		D
Approach Vol, veh/h		1098			1061			137			174	
Approach Delay, s/veh		31.8			130.5			40.2			39.3	
Approach LOS		C			F			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	8.5	11.4	26.2	33.8	6.9	13.0	21.8	38.2
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	5.1	18.1	9.5	29.3	5.1	18.1	5.1	33.7
Max Q Clear Time (g_c+I1), s	2.0	6.6	5.5	22.7	2.0	8.1	4.0	35.7
Green Ext Time (p_c), s	0.0	0.3	0.1	3.2	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	871	40	121	799	72	92	103	184	123	161	38
Future Volume (veh/h)	48	871	40	121	799	72	92	103	184	123	161	38
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	52	947	43	132	868	78	100	112	200	134	175	41
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	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	511	1106	495	485	1054	472	219	176	149	168	234	199
Arrive On Green	0.29	0.31	0.31	0.27	0.30	0.30	0.06	0.09	0.09	0.09	0.13	0.13
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	52	947	43	132	868	78	100	112	200	134	175	41
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.7	20.1	1.5	4.7	18.3	2.1	2.2	4.6	4.3	5.9	7.3	1.9
Cycle Q Clear(g_c), s	1.7	20.1	1.5	4.7	18.3	2.1	2.2	4.6	4.3	5.9	7.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	511	1106	495	485	1054	472	219	176	149	168	234	199
V/C Ratio(X)	0.10	0.86	0.09	0.27	0.82	0.17	0.46	0.64	1.34	0.80	0.75	0.21
Avail Cap(c_a), veh/h	511	1106	495	485	1261	564	224	419	356	233	543	461
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	20.9	25.8	19.4	22.8	26.1	10.3	36.1	34.9	11.9	35.5	33.8	31.4
Incr Delay (d2), s/veh	0.4	8.6	0.3	0.3	3.9	0.2	1.5	3.8	166.1	12.4	4.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	11.0	0.7	2.3	9.5	1.2	1.1	2.6	9.8	3.5	4.1	0.8
LnGrp Delay(d),s/veh	21.3	34.4	19.8	23.1	30.0	10.5	37.6	38.7	178.1	47.8	38.5	31.9
LnGrp LOS	C	C	B	C	C	B	D	D	F	D	D	C
Approach Vol, veh/h		1042			1078			412			350	
Approach Delay, s/veh		33.1			27.8			106.1			41.3	
Approach LOS		C			C			F			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	12.1	12.0	26.4	29.5	9.6	14.5	27.5	28.3
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	10.5	18.0	8.5	25.0	5.2	23.3	5.0	28.5
Max Q Clear Time (g_c+I1), s	7.9	6.6	6.7	22.1	4.2	9.3	3.7	20.3
Green Ext Time (p_c), s	0.1	0.9	0.1	1.6	0.0	0.8	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	12	18	13	2	7	12	152	11	14	253	15
Future Vol, veh/h	15	12	18	13	2	7	12	152	11	14	253	15
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	16	13	20	14	2	8	13	165	12	15	275	16
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.4	8.3	9.1	10.5
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	59%	100%	0%
Vol Thru, %	0%	93%	27%	9%	0%	94%
Vol Right, %	0%	7%	40%	32%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	163	45	22	14	268
LT Vol	12	0	15	13	14	0
Through Vol	0	152	12	2	0	253
RT Vol	0	11	18	7	0	15
Lane Flow Rate	13	177	49	24	15	291
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.02	0.242	0.068	0.034	0.023	0.391
Departure Headway (Hd)	5.464	4.914	4.97	5.109	5.372	4.831
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	656	732	720	700	667	746
Service Time	3.19	2.64	3.003	3.147	3.097	2.555
HCM Lane V/C Ratio	0.02	0.242	0.068	0.034	0.022	0.39
HCM Control Delay	8.3	9.2	8.4	8.3	8.2	10.6
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0.1	0.9	0.2	0.1	0.1	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	65	107	60	23	4	35	297	20	4	273	0
Future Volume (veh/h)	72	65	107	60	23	4	35	297	20	4	273	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	78	71	116	65	25	4	38	323	22	4	297	0
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	118	100	164	106	236	38	73	710	48	10	700	0
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.04	0.41	0.41	0.01	0.38	0.00
Sat Flow, veh/h	1774	637	1041	1774	1568	251	1774	1725	117	1774	1863	0
Grp Volume(v), veh/h	78	0	187	65	0	29	38	0	345	4	297	0
Grp Sat Flow(s),veh/h/ln	1774	0	1679	1774	0	1818	1774	0	1842	1774	1863	0
Q Serve(g_s), s	2.1	0.0	5.2	1.8	0.0	0.7	1.0	0.0	6.7	0.1	5.8	0.0
Cycle Q Clear(g_c), s	2.1	0.0	5.2	1.8	0.0	0.7	1.0	0.0	6.7	0.1	5.8	0.0
Prop In Lane	1.00		0.62	1.00		0.14	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	118	0	264	106	0	273	73	0	759	10	700	0
V/C Ratio(X)	0.66	0.00	0.71	0.61	0.00	0.11	0.52	0.00	0.45	0.42	0.42	0.00
Avail Cap(c_a), veh/h	198	0	614	198	0	665	180	0	759	180	700	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	0.0	19.7	22.6	0.0	18.0	23.1	0.0	10.5	24.4	11.4	0.0
Incr Delay (d2), s/veh	6.1	0.0	3.5	5.6	0.0	0.2	5.6	0.0	2.0	26.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.6	1.0	0.0	0.4	0.6	0.0	3.8	0.1	3.3	0.0
LnGrp Delay(d),s/veh	28.6	0.0	23.2	28.2	0.0	18.2	28.7	0.0	12.4	50.7	13.3	0.0
LnGrp LOS	C		C	C		B	C		B	D	B	
Approach Vol, veh/h		265			94			383			301	
Approach Delay, s/veh		24.8			25.1			14.1			13.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	24.8	7.4	12.2	6.5	23.0	7.8	11.9
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	18.5	5.5	18.0	5.0	18.5	5.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	8.7	3.8	7.2	3.0	7.8	4.1	2.7
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.0	1.1	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	905	37	0	964	0	52
Future Vol, veh/h	905	37	0	964	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	984	40	0	1048	0	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1004
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	293
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	293
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	293	-	-	-
HCM Lane V/C Ratio	0.193	-	-	-
HCM Control Delay (s)	20.2	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	18	18	362	285	37
Future Vol, veh/h	18	18	18	362	285	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	20	20	20	393	310	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	763	330	350	0	-	0
Stage 1	330	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	372	712	1209	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	364	712	1209	-	-	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1209	-	482	-	-
HCM Lane V/C Ratio	0.016	-	0.081	-	-
HCM Control Delay (s)	8	0	13.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	898	62	92	824	60	28	75	23	30	97	33
Future Volume (veh/h)	51	898	62	92	824	60	28	75	23	30	97	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	976	67	100	896	65	30	82	25	33	105	36
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
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	384	1231	84	482	1410	102	156	119	36	216	142	49
Arrive On Green	0.22	0.37	0.37	0.27	0.42	0.42	0.03	0.09	0.09	0.05	0.11	0.11
Sat Flow, veh/h	1774	3361	231	1774	3347	243	1774	1371	418	1774	1327	455
Grp Volume(v), veh/h	55	514	529	100	474	487	30	0	107	33	0	141
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1820	1774	0	1789	1774	0	1782
Q Serve(g_s), s	2.0	20.7	20.7	3.5	16.9	16.9	0.0	0.0	4.6	0.0	0.0	6.1
Cycle Q Clear(g_c), s	2.0	20.7	20.7	3.5	16.9	16.9	0.0	0.0	4.6	0.0	0.0	6.1
Prop In Lane	1.00		0.13	1.00		0.13	1.00		0.23	1.00		0.26
Lane Grp Cap(c), veh/h	384	648	667	482	745	767	156	0	155	216	0	190
V/C Ratio(X)	0.14	0.79	0.79	0.21	0.64	0.64	0.19	0.00	0.69	0.15	0.00	0.74
Avail Cap(c_a), veh/h	384	648	667	482	745	767	216	0	405	240	0	403
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	0.00	1.00
Uniform Delay (d), s/veh	25.3	22.6	22.6	22.5	18.3	18.3	37.4	0.0	35.5	34.8	0.0	34.7
Incr Delay (d2), s/veh	0.2	9.6	9.4	0.2	4.1	4.0	0.6	0.0	5.3	0.3	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	11.9	12.2	1.7	9.0	9.2	0.7	0.0	2.5	0.7	0.0	3.3
LnGrp Delay(d),s/veh	25.5	32.3	32.0	22.7	22.4	22.3	38.0	0.0	40.8	35.1	0.0	40.2
LnGrp LOS	C	C	C	C	C	C	D		D	D		D
Approach Vol, veh/h		1098			1061			137			174	
Approach Delay, s/veh		31.8			22.4			40.2			39.3	
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	8.5	11.4	26.2	33.8	6.9	13.0	21.8	38.2
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	5.1	18.1	9.5	29.3	5.1	18.1	5.1	33.7
Max Q Clear Time (g_c+I1), s	2.0	6.6	5.5	22.7	2.0	8.1	4.0	18.9
Green Ext Time (p_c), s	0.0	0.3	0.1	3.2	0.0	0.4	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

APPENDIX D
ROADWAY DESIGN STANDARDS

ROAD TYPE												
		ACCESS ROAD	LOCAL STREET	ENHANCED LOCAL STREET AT SCHOOL OR PARK (g)	COLLECTOR	INDUSTRIAL COLLECTOR STREET	SECONDARY HIGHWAY	MAJOR HIGHWAY	MOUNTAIN ARTERIAL HIGHWAY	ARTERIAL HIGHWAY	URBAN ARTERIAL HIGHWAY	EXPRESSWAY
STANDARD NO.		106	105	104	103	111	94	93	95	92	91	81
TRAFFIC INDEX (f)		5.5 MIN. (i)	5.5	6.5	7.0	8.0	8.5	9.0	9.5	9.5	10.0	11.0
RIGHT-OF-WAY (h)		60	56	66	74	78	100	118	110	128	152	220
SURFACED WIDTH OR CURB TO CURB		32	36	44	44	56	64	76	SEE STD 95	86	110	SEE STD
MINIMUM RADII (HORIZONTAL)	FLAT	300	300	300	600	850	1400	1900	----	2400	2400	3200
	ROLLING	300	300	300	450	600	1100	1400	1100	1900	1900	2400
	MOUNTAINOUS	AS APPROVED BY THE DIRECTOR OF TRANSPORTATION (R=150' MINIMUM)										
MAXIMUM GRADE (%) PREDOMINANTLY	FLAT	4	4	4	4	4	3	3	----	3	3	3
	ROLLING	9	9	8	8	8	6	6	7	6	6	6
	MOUNTAINOUS	16	16	12	12	12	9	9	9	9	----	----
PREFERRED DESIGN SPEED	FLAT	30	30	30	35	40	50	55	----	60	60	65
	ROLLING	30	30	30	30	35	45	50	45	55	55	60
	MOUNTAINOUS	AS APPROVED BY THE DIRECTOR OF TRANSPORTATION										
INTERSECTION INTERVALS		N/A	200	200 (g)	200 (e)	200	330 (e)	660 (e)	330 (e)	1320 (e)	1320 (d)	2640 (d)

(a) MINIMUM PAVING THICKNESS PER SPECIFICATIONS SECTION 8.07 OF THIS ORDINANCE
(b) ROADWAY DESIGN LESS THAN SHOWN REQUIRES TRANSPORTATION DEPARTMENT APPROVAL.
(c) PART-WIDTH STREET SECTIONS SHALL BE IMPROVED AND R/W CONVEYED AS SHOWN ON TYPICAL STREET SECTIONS.
(d) DIRECT ACCESS PROHIBITED
(e) RESIDENTIAL ACCESS PROHIBITED. COMMERCIAL/INDUSTRIAL DRIVEWAY ACCESS AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION.
(f) FOR DEVELOPMENTS THAT HAVE A SIGNIFICANT AMOUNT OF TRUCK TRAFFIC, THE DEVELOPER MAY BE REQUIRED TO PERFORM A TRAFFIC ANALYSIS TO DETERMINE THE APPROPRIATE TRAFFIC INDEX FOR THE ROADWAY IMPROVEMENTS.
(g) MAY USE AS A CUL-DE-SAC IN INDUSTRIAL OR COMMERCIAL USE AREAS, NOT TO EXCEED 660' IN LENGTH.
(h) ADDITIONAL R/W REQUIRED AT INTERSECTIONS TO ACCOMMODATE DUAL LEFT TURNS PER STD's 91-94. ADDITIONAL R/W MAY BE REQUIRED ON OPPOSITE SIDE OF INTERSECTION TO ALIGN THROUGH LANES.
(i) FOR ACCESS ROADS, IF THE ULTIMATE ROAD CLASSIFICATION IS A GENERAL PLAN HIGHWAY, THE TRAFFIC INDEX REQUIREMENT IS 7.0.

APPROVED BY:

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07

REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

ROADWAY DESIGN REQUIREMENTS

STANDARD NO. 114

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
1-89, 2-90	4-04	1	DA		4-04	4			
3-93, 12-97		2				5			
11-04		3				6			