Appendix E

Transportation Impact Analysis

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TRANSPORTATION IMPACT ANALYSIS

MCCLELLAN-PALOMAR AIRPORT MASTER PLAN UPDATE

County of San Diego, California
December 7, 2017

LLG Ref. 3-17-2772

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TRANSPORTATION IMPACT ANALYSIS

MCCLELLAN-PALOMAR AIRPORT MASTER PLAN UPDATE

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1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has been retained to assess the potential transportation impacts associated with the McClellan-Palomar Airport Master Plan Update ("Project"). The Project is a flexible, phased 20-year strategy to prioritize projects at the Airport that provide safety and operational enhancements. The Project is located within the municipal limits of the City of Carlsbad. Included in this transportation study are the following:

- Project Description
- Existing Conditions Discussion
- Analysis Approach and Methodology
- Significance Criteria
- Analysis of Existing Conditions
- Trip Generation/Distribution/Assignment
- Analysis of Existing + Project Scenarios
- Cumulative Projects Discussion
- Analysis of Near-Term Scenarios
- Analysis of Long-Term Scenarios
- Bicycle / Pedestrian / Transit Analysis
- Significant Impacts and Mitigation Measures

Figure 1–1 shows the vicinity map. ***Figure 1–2*** shows a more detailed Project area map.

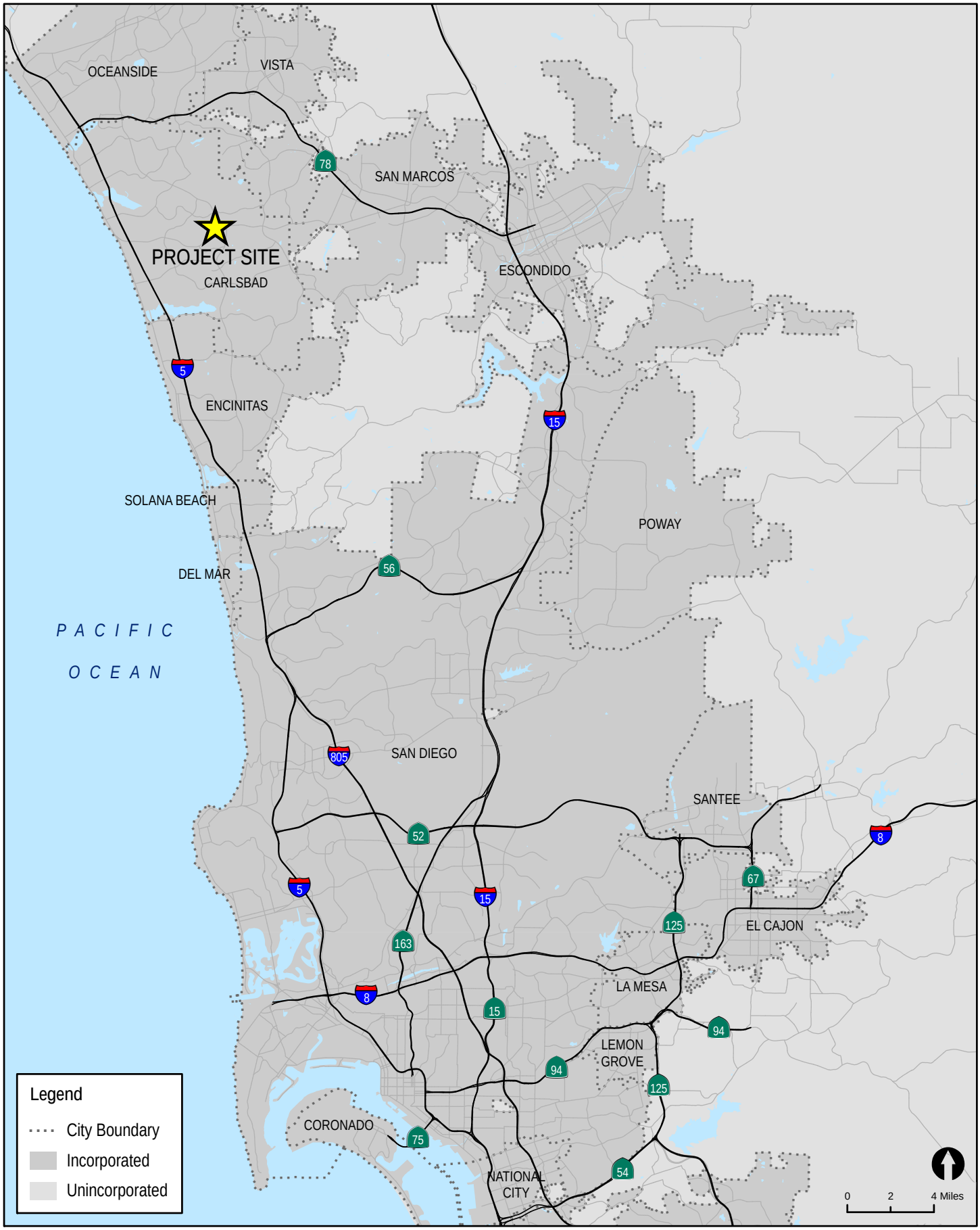

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Figure 1-1

Vicinity Map

McClellan Palomar Airport Master Plan

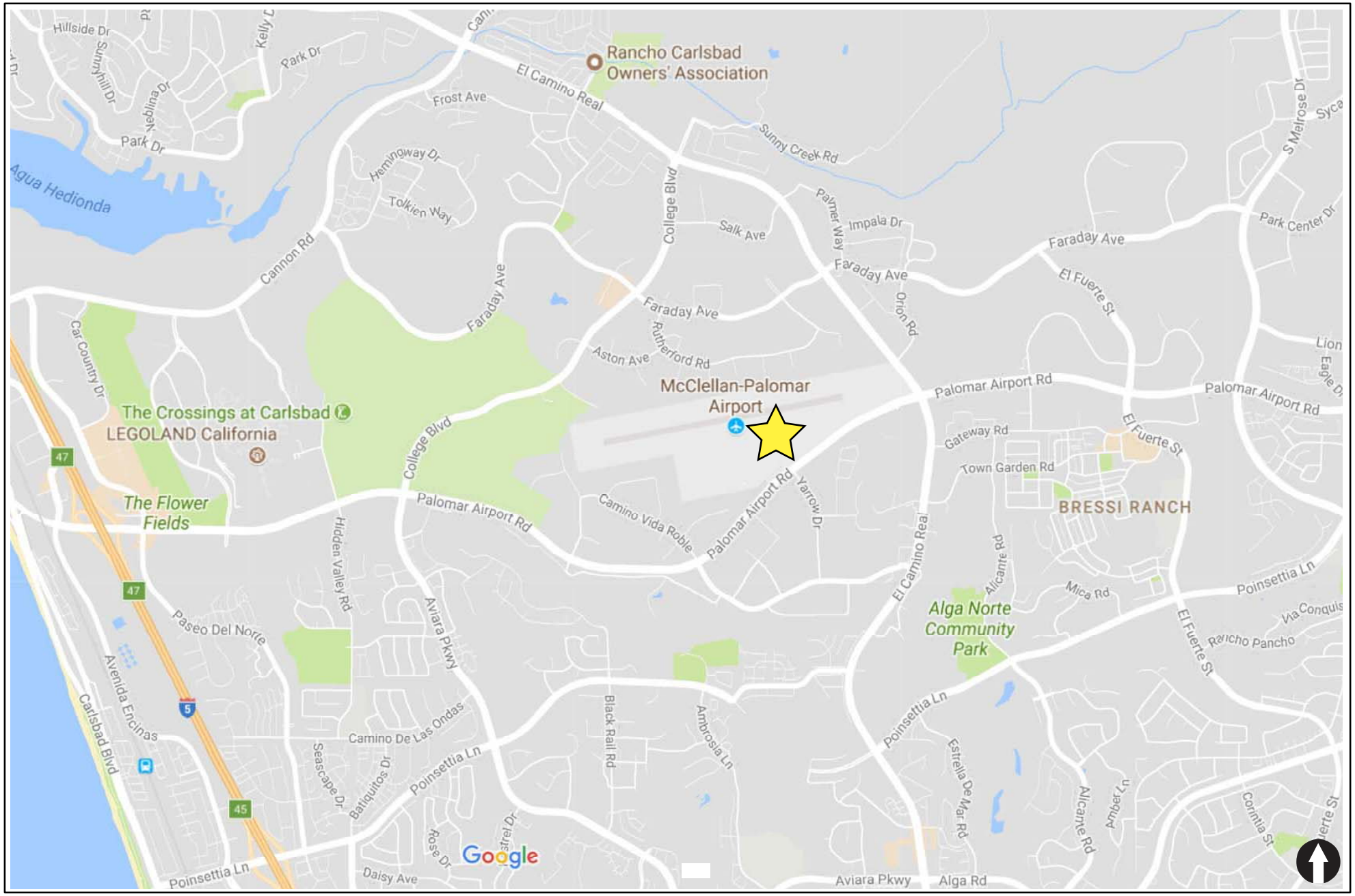

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Figure 1-2

Project Area Map

McClellan Palomar Airport Master Plan

2.0 PROJECT DESCRIPTION

The County of San Diego Department of Public Works (County) owns and operates McClellan Palomar Airport within the municipal boundary of the City of Carlsbad. Although the County's property in the vicinity totals approximately 450 acres, including aviation and non-aviation land, the approximately 250-acre Master Plan Project study area encompasses the active airfield, tenant leaseholds, aircraft and auto parking, passenger terminal building, and administrative facilities located north of Palomar Airport Road at Yarrow Drive.

The Master Plan is a flexible, phased 20-year strategy to prioritize projects at the Airport that provide safety and operational enhancements. The Project focuses on the "D-III Modified Standards Compliance" classification to meet the current and future needs at the airport.

The major objectives of the D-III Modified Standards Compliance design for the airport include:

- Meeting FAA-required safety areas around the runway and taxiways (requires shifting aircraft movement areas),
- Maintaining a 150-foot wide runway,
- Installation of Engineered Materials Arresting System (EMAS) as a safety enhancement to stop aircraft in overrun situations,
- Improvements to the capacity and efficiency of landside (i.e. emergency services and passenger/visitor administration) facilities.

A conceptual phasing plan for the Project is shown below.

<u>Near-Term Projects (0-7 years):</u>

- Elements to meet FAA's safety and design standards for the C/D-III airport classification, including the Runway Safety Area (RSA) of the existing runway/taxiway alignment
    - Relocation of the glideslope building, segmented circle, windsock equipment
    - Relocation of the vehicle service road
- New EMAS on the western end of runway 06-24
- Aircraft Rescue & Fire Fighting (ARFF) facility relocation
- 200-foot extension of the current runway and taxiway "A"
- Landslide improvements to meet near-term aviation forecasts

<u>Intermediate-Term Projects (8-12 years):</u>

- Elements to clear the RSA and the Runway Object Free Area (ROFA) of the ultimate runway/taxiway alignment
    - Removal of aircraft fueling tank and parking on north ramp
- Landslide improvements to meet intermediate aviation forecasts

Long-Term Projects (13-20 years):

- Movement of runway 06-24 123-foot to the north, and all associated actions
  - Reconstruction/removal of connector taxiways
  - Relocation of EMAS on western end of new runway alignment
  - Relocation of navigational aids
  - Additional 600-foot extension on the ultimate runway and taxiway "A"
- Landslide improvements to meet long-term aviation forecasts

Figure 2–1 shows the conceptual phasing plan for the Project. Access to the airport is provided via Yarrow Drive and Owens Avenue.

This transportation study focuses on the Project's long-term forecasted increase in commercial passenger enplanements and associated traffic impacts. An enplanement is measured by one commercial air service passenger boarding a scheduled flight. The Master Plan studies the potential for growth of commercial air service at the airport over a 20-year planning period. ***Table 2–1*** shows the operations/enplanements for the existing conditions as well as for two (2) Project alternatives called Passenger Activity Levels (PAL) forecasts, which have different enplanement projections (PAL1, PAL2).

TABLE 2–1
PROJECT OPERATIONS/ENPLANEMENTS

	Existing	PAL1	PAL2
Year	2016	2036	2036
Annual Aircraft Operations	149,029	192,860	194,300
Annual Enplanements	131	304,673	575,000
Design Hour Enplanements	--	63	165
Average Daily Enplanements	--	835	1,575

CONCEPTUAL DEVELOPMENT PHASES/FEATURES:

NEAR-TERM (0-7 YEARS)

1. Relocation of the Glideslope Building and Antenna
2. Relocation of the Segmented Circle and Windsock Equipment
3. Relocation of ARFF Facility
4. Construction of EMAS System for RWY 24
5. Relocation of the Vehicle Service Road
6. Relocation of Lighting Vault
7. 200' Extension of Existing RWY 06-24 and TWY A

INTERMEDIATE-TERM (8-12 YEARS)

8. Removal of Fuel Farm on North Apron
9. Removal of the North Apron and TWY N
10. Area Reserved for Future GA Parking
11. Passenger/Admin/Parking Facility Improvements

PHASE 3: LONG-TERM (13-20 YEARS)

12. Relocation 123' North/Extension of RWY 06-24 (Includes REILs, PAPIs, Localizer Antennae and MALSRs)
13. Removal/Reconstruction of Existing Connector Taxiways
14. Removal/Reconstruction of Existing TWY A (Includes Lighting)
15. Construction of EMAS System for RWY 06
16. Relocation of EMAS System for RWY 24

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Figure 2-1

Conceptual Phasing Plan

McClellan-Palomar Airport Master Plan

3.0 EXISTING CONDITIONS

Effective evaluation of the traffic impacts associated with the proposed Project requires an understanding of the existing transportation system within the Project area. The City of Carlsbad uses San Diego Traffic Engineers' Council (SANTEC) criteria to determine the traffic report study area. This criteria utilizes the 50 peak hour trip threshold meaning intersections and segments were included where the Project adds 50 or more peak hour trips. The standard of practice is to not include more minor intersections such as unsignalized intersections, private driveways, and intersections where the Project does not add right or left-turn movements. The specific study area includes the following intersections and street segments. ***Figure 3–1*** shows the intersections and street segments included in the study area. ***Figure 3–2*** shows an existing conditions diagram, including signalized intersections and lane configurations.

Intersections:

1. Canon Road / Faraday Avenue
2. El Camino Real / College Boulevard
3. College Boulevard / Faraday Avenue
4. El Camino Real / Faraday Avenue
5. I-5 Southbound (SB) Ramps / Palomar Airport Road
6. I-5 Northbound (NB) Ramps / Palomar Airport Road
7. Palomar Airport Road / Paseo Del Norte
8. Palomar Airport Road / Armada Drive
9. Palomar Airport Road / Hidden Valley Road
10. Palomar Airport Road / College Boulevard
11. Palomar Airport Road / Camino Vida Roble
12. Palomar Airport Road / Yarrow Drive
13. Palomar Airport Road / El Camino Real
14. Palomar Airport Road / Loker Avenue
15. Palomar Airport Road / El Fuerte Street
16. Palomar Airport Road / Melrose Drive
17. El Camino Real / Town Garden Road
18. El Camino Real Camino Vida Roble
19. El Camino Real / Poinsettia Lane

Segments:

Palomar Airport Road

- I-5 Ramps to Paseo Del Norte

- Paseo Del Norte to Armada Drive
- Armada Drive to Hidden Valley Road
- Hidden Valley Road to College Boulevard
- College Boulevard to Camino Vida Roble
- Camino Vida Roble to Yarrow Drive
- Yarrow Drive to El Camino Real
- El Camino Real to Loker Avenue
- Loker Avenue to El Fuerte Street
- El Fuerte Street to Melrose Drive
- East of Melrose Drive

El Camino Real

- North of College Boulevard
- College Boulevard to Faraday Avenue
- Faraday Avenue to Palomar Airport Road
- Palomar Airport Road to Town Garden Road
- Town Garden Road to Camino Vida Roble
- Camino Vida Roble to Poinsettia Lane
- South of Poinsettia Lane

College Boulevard

- Faraday Avenue to Palomar Airport Road

3.1 Existing Street Network

The following is a description of the existing street network in the study area.

Palomar Airport Road is classified as an Arterial Street according to the *City of Carlsbad Mobility Element*. Palomar Airport Road is currently constructed as a six-lane divided roadway throughout the study area. The posted speed limit eastbound is 35 mph between the I-5 ramps and Paseo Del Norte and 55 mph between Paseo Del Norte and Melrose Drive. The posted speed limit westbound is 55 mph between Melrose Drive and Armada Drive and 35 mph between Armada and the I-5 ramps. Street parking is not permitted along Palomar Airport Road.

El Camino Real is classified as an Arterial Street according to the *City of Carlsbad Mobility Element*. El Camino Real is currently constructed as a five-lane divided roadway between Jackspar Drive and College Boulevard and a six-lane divided roadway between College Boulevard and Alga Road. The posted speed limit is 55 mph in both directions throughout the study area. On street parking is not permitted along El Camino Real

College Boulevard is classified as an Arterial Street according to the *City of Carlsbad Mobility Element*. College Boulevard is currently constructed as four-lane divided roadway throughout the study area. The posted speed limit is 50 mph throughout the study area. Street parking is not permitted along College Boulevard.

Cannon Road is classified as an Arterial Street in the *City of Carlsbad Mobility Element*. Within the study area, Cannon Road is currently constructed as a four-lane divided roadway. The posted speed limit is 50 mph. Curbside parking is not permitted along Cannon Road.

Melrose Drive is classified as an Arterial Street according to the *City of Carlsbad Mobility Element.* Melrose Drive is currently constructed as a six-lane divided roadway. The posted speed limit is 55 mph in both directions throughout the study area. On street parking is not permitted along Melrose Drive.

Faraday Avenue is classified as an Employment/Transit Connector Street according to the *City of Carlsbad Mobility Element.* Faraday Avenue is currently constructed as a two-lane roadway that is divided from Cannon Road to a mile southeast of Cannon Road and undivided with a two way left turn lane from a mile southeast of Cannon Road to Oak Ridge Way. The posted speed limit is 40 mph throughout the study area. On street parking is not permitted along Faraday Avenue.

Poinsettia Lane is classified as an Employment/Transit Connector Street between Carlsbad Boulevard and College Boulevard, an Arterial Connector Street between College Boulevard and Paseo Escuela, and a School Street between Paseo Escuela and Melrose Drive according to the *City of Carlsbad Mobility Element.* Poinsettia Lane is currently constructed as a four-lane divided roadway throughout the study area. The posted speed limit is 50 mph. Street parking is not permitted along Poinsettia Lane.

Camino Vida Roble is classified as an Industrial Street according to the *City of Carlsbad Mobility Element.* Camino Vida Roble is currently a two-lane undivided roadway with a two way left turn lane. The posted speed limit is 40 mph. On Street parking is not permitted along Camino Vida Roble.

Yarrow Drive is classified as an Industrial Street according to the *City of Carlsbad Mobility Element*. Yarrow Drive is currently constructed as a 4 lane undivided roadway and its northern terminus serves as the main entrance to the airport. The posted speed limit is 40 mph. On street parking is not permitted along Yarrow Drive.

Town Garden Road is classified as an Industrial Street according to the *City of Carlsbad Mobility Element*. Town Garden Road is currently constructed as a four-lane undivided roadway east of El Camino Real and a two-lane undivided roadway west of El Camino Real. The posted speed limit is 40 mph east bound and 10 mph going west bound. On street parking is not permitted along Town Garden Road.

Paseo Del Norte is classified as a Neighborhood Connector Street according to the *City of Carlsbad Mobility Element*. Paseo Del Norte is currently constructed as four-lane divided roadway between Cannon Road and Car Country Drive and a four-lane undivided roadway with left turn pockets intermittently between Car Country Drive and Palomar Airport Road. South of Palomar Airport Road, Paseo Del Norte continues as a four-lane undivided roadway with a two way left turn lane. There is no posted speed limit. On street parking is not permitted along Paseo Del Norte

Armada Drive is classified as an Industrial Street according to the *City of Carlsbad Mobility Element*. Armada Drive is currently constructed as a four-lane divided roadway with a short segment having a two way left turn lane in between Fleet Street. The post speed limit is 40 mph. On street parking is not permitted along Armada Drive.

Hidden Valley Road is classified as a Local/Neighborhood Street according to the *City of Carlsbad Mobility Element.* Hidden Valley Road is currently constructed as a two lane undivided roadway with a two way left turn lane. The posted speed limit is 40 mph. On street parking is not permitted along Hidden Valley Road.

Loker Avenue is classified as an Industrial Street according to the *City of Carlsbad Mobility Element*. Loker Avenue is currently constructed as a two-lane undivided roadway. The posted speed limit is 35 mph. On street parking is permitted along Loker Avenue.

El Fuerte Street is classified as an Industrial Street between Faraday Avenue and Palomar Airport Road, a Neighborhood Connect Street between Palomar Airport Road and Bressi Ranch Way, and a School Street between Bressi Ranch Way and Poinsettia Lane. The posted speed limit is 45 mph. On street parking is not permitted along El Fuerte Street.

3.2 Existing Bicycle Network

Currently, there is a Class 2 bike lane provided along each roadway within the study area with the exceptions of the following:

- Palomar Airport Road, west of Paseo Del Norte
- Faraday Avenue, between El Camino Real & Palmer Way
- Armada Drive, south of Palomar Airport Road
- Hidden Valley Road, north of Palomar Airport Road
- Camino Vida Roble, north of Palomar Airport Road
- Yarrow Drive
- Town Garden Road, west of El Camino Real

3.3 Existing Transit Conditions

Transit service in the vicinity of the Project is provided by North County Transit District (NCTD). The following NCTD bus routes serve the area with nearby stops along Palomar Airport Road at Camino Vida Roble, Yarrow Drive, and El Camino Real.

- Route 309 – Oceanside to Encinitas via El Camino Real – provides service between Encinitas Station, El Camino Real SPRINTER Station, and San Luis Rey Transit Center primarily via El Camino Real. Route 309 generally provides service at 30 minute headways Monday through Saturday, with headways increasing to 60 minutes in the evening after the afternoon peak period. Sunday and holiday service is at approximately 60 minute headways for the full day.

- Route 444 – Carlsbad Poinsettia COASTER Connection via Faraday Avenue & Rutherford Road – provides service between Carlsbad Poinsettia COASTER station and Cannon Road & Ground Pacific Drive primarily via Palomar Airport Road, College Boulevard, and Faraday Avenue. Route 444 generally provides service at 80 minute headways Monday through Friday with headways decreasing to 30 minutes in the evening hours. Route 444 does not provide service on weekends or holidays.

- Route 445 – Carlsbad Poinsettia COASTER Connection to Palomar College – provides service between Carlsbad Poinsettia Station and Palomar College primarily via Palomar Airport Road and San Marcos Boulevard. Route 445 generally provides service at 80 minute headways Monday through Friday with headways decreasing to 30 minutes in the even hours. Route 445 does not operate on weekends or holidays.

3.4 Existing Traffic Volumes

LLG confirmed with City of Carlsbad staff that existing weekday AM and PM peak hour (7:00-9:00 AM and 4:00-6:00 PM) traffic volumes should be obtained for the circulation element intersections from the City of Carlsbad's 2016 Traffic Monitoring Program (TMP). The TMP collected traffic during July 2016. At locations where the City has not collected data, counts were commissioned on Wednesday, June 21, 2017.

Figure 3–3 shows the Existing Traffic Volumes. ***Appendix A*** contains the manual count sheets.

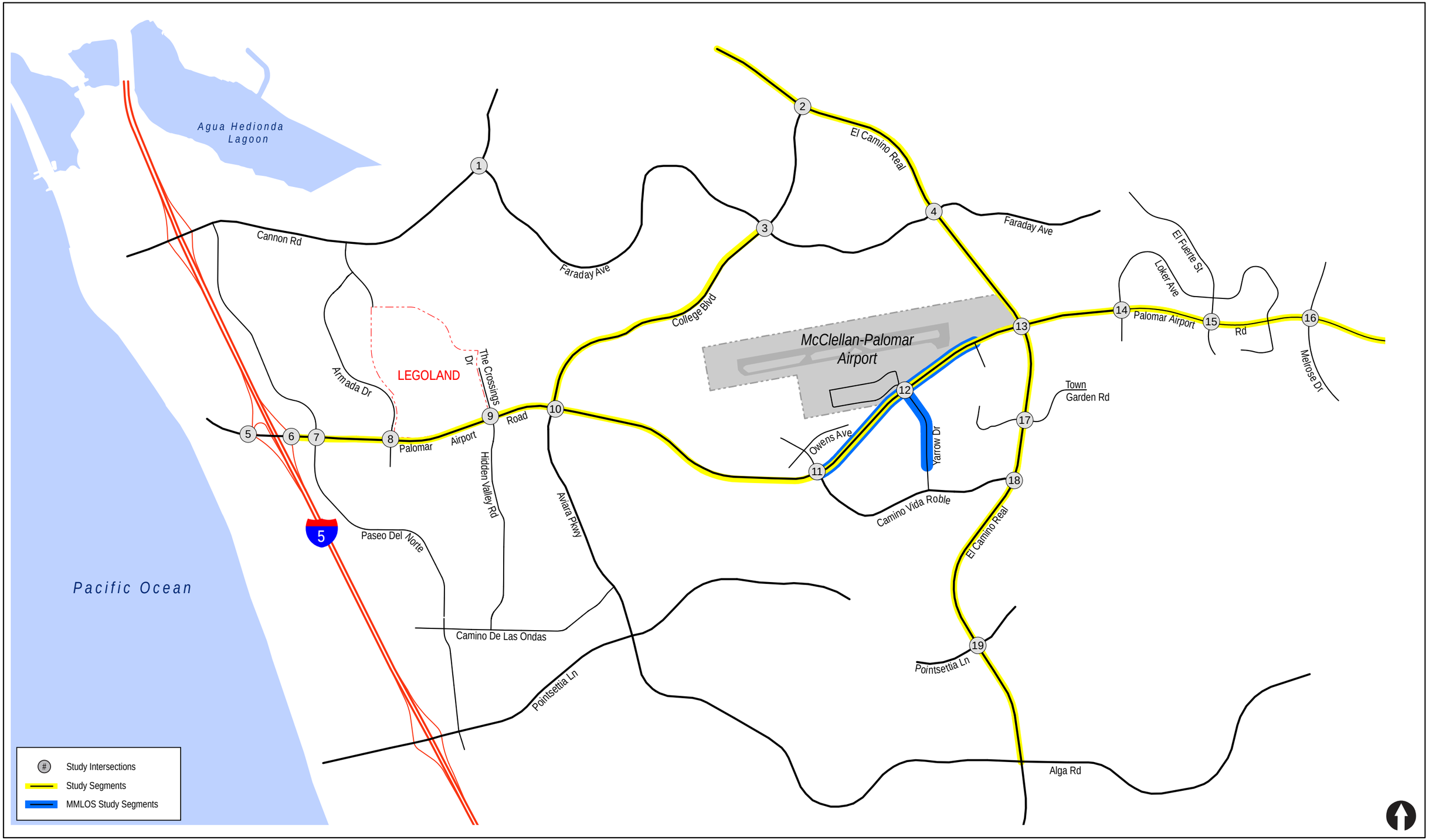

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Figure 3-1

Study Area Diagram

McClellan-Palomar Airport Master Plan

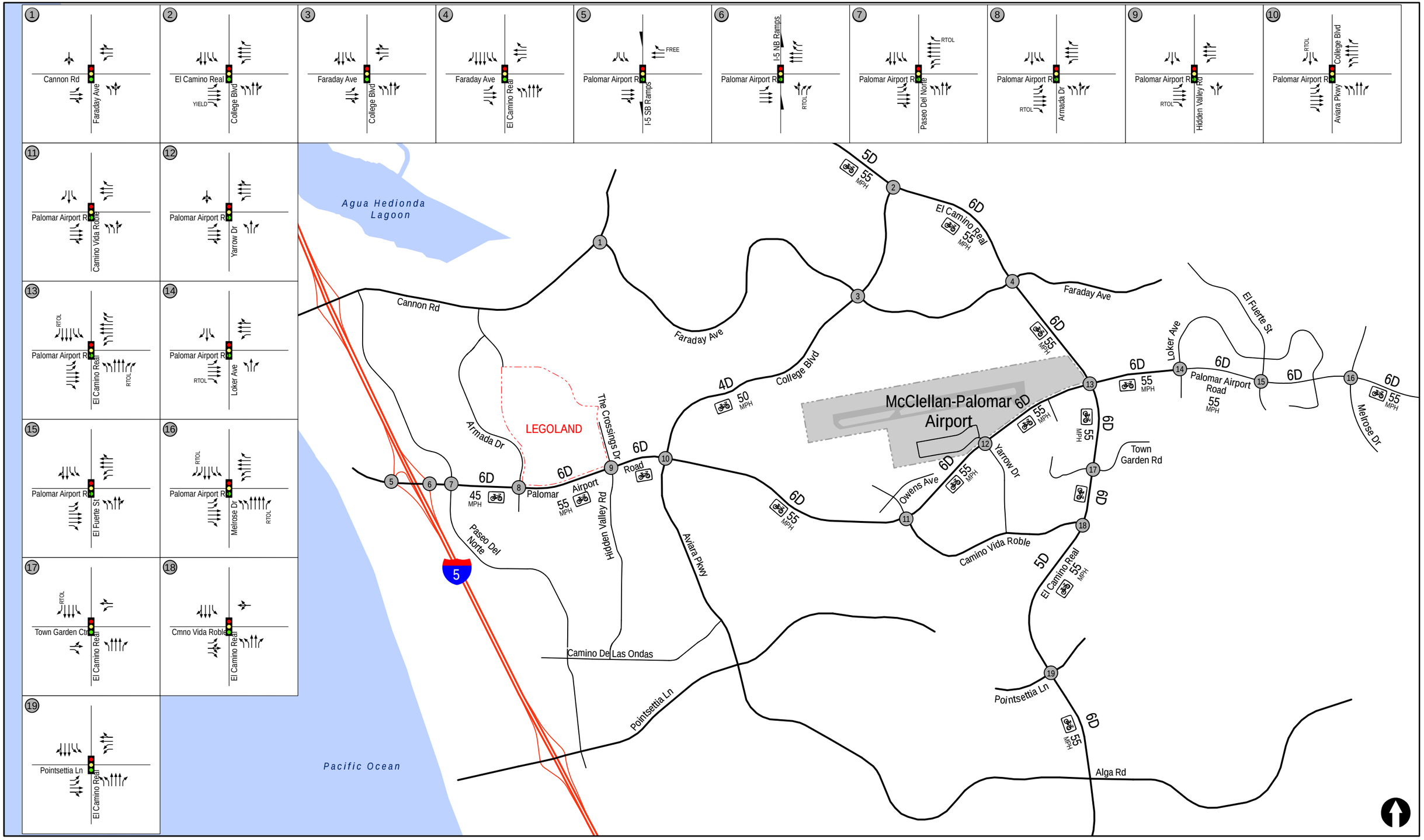

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Figure 3-2

Existing Conditions

McClellan-Palomar Airport Master Plan

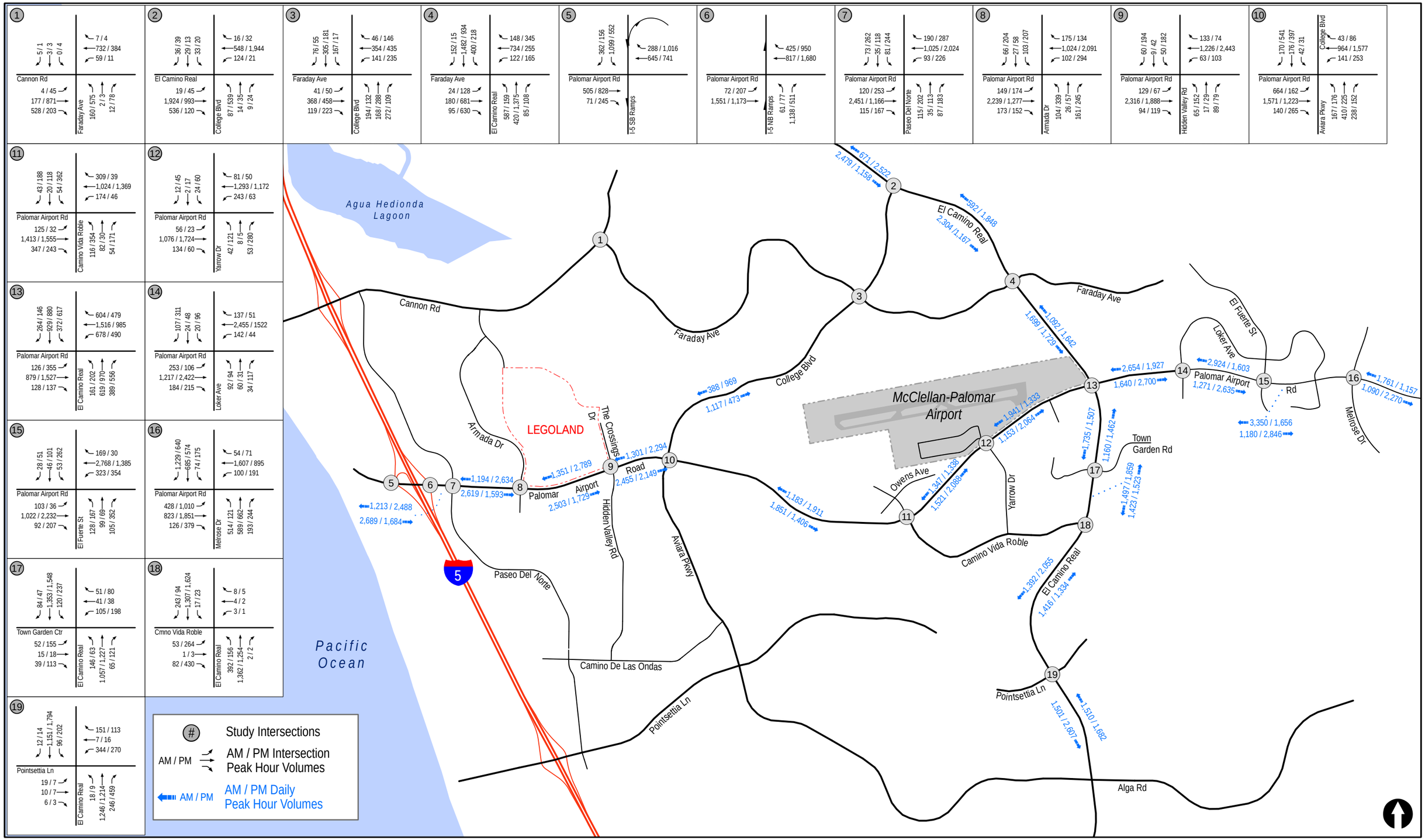

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Figure 3-3

Existing Traffic Volumes

McClellan-Palomar Airport Master Plan

4.0 ANALYSIS APPROACH AND METHODOLOGY

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

Since the intersections and roadways within the study area are located within the City of Carlsbad, this report utilizes Carlsbad analysis methodologies as described below and CEQA thresholds of significance.

4.1 Intersections

Per City of Carlsbad standards, the study intersections were analyzed using the *Intersection Capacity Utilization (ICU)* method for Existing and Existing with Project under AM and PM peak hour conditions.

The ICU procedure is based on an article in the Institute of Transportation Engineers Journal, August 1978 and assumes the traffic flow characteristics of signalized intersections. It computes the Level of Service (LOS) for the total intersection based upon a summation of volume to capacity (V/C) ratios for the key conflicting movements. The ICU numerical value represents the percent of signal green time, and thus, the capacity required to serve the traffic demand. The LOS for signalized intersections varies from A (free flow, little delay) to F ("heavy congestion" conditions). ICU methodology and calculation worksheets can be found in ***Appendix B.***

Under Near-Term and Long-Term conditions, the study intersections were analyzed using the *2010 Highway Capacity Manual* (HCM) methodology. Intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 18 of the HCM, with the assistance of the *Synchro* (version 10) computer software. The delay values (represented in seconds) were then converted to a corresponding intersection LOS. Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in *Appendix B.*

4.2 Street Segments

Per City of Carlsbad standards, the study street segments in the Project area were analyzed on a peak hour basis. The midblock peak hour volumes were utilized to calculate volume to capacity ratio (V/C) for each direction of the street segment. The City of Carlsbad assumes a one-direction capacity of *1,800 vehicles per hour per lane* for through lanes. A LOS is determined by using V/C thresholds.

4.2.1 *Pedestrians/Bicyclists/Transit*

For pedestrian, bicycle, and transit level of service, only modes subject to multi-modal level of service (MMLOS) standards for a given segment need to be evaluated, as indicated in Table 3-1 of the City of Carlsbad Mobility Element. Segments to be analyzed for MMLOS are unique for each mode.

For pedestrian level of service, segments are to be defined from each pedestrian entry point from the project to the nearest intersection in both directions. In most cases, there will be two segments per entry point. LOS should be evaluated for the project side of the street only.

For bicycle level of service, segments are to be defined from each bicycle entry point from the project to the nearest intersection in both directions. Segments should be analyzed for both sides of the street and each side of the street should be assigned a separate level of service.

For transit level of service, segments are to be defined from each pedestrian entry point from the project to the nearest transit stop for both directions of transit service, up to ¼ mile.

In the case of the Project, the nearest intersections in either direction of the Project driveways are the intersections of Palomar Airport Road with Camino Vida Roble to the west and the Lowes Shopping Center driveway to the east. The location of the nearest transit stops are located on Yarrow Drive (200 feet south of Palomar Airport Road) and on Palomar Airport Road (200 feet east of Yarrow Drive). Thus, the applicable MMLOS study segments are as follows for the three modes and are illustrated in *Figure 3–1*:

<u>Pedestrian</u>

- Palomar Airport Road from Camino Vida Roble to Yarrow Drive
- Palomar Airport Road from Yarrow Drive to the Lowes Shopping Center Driveway (at 2501 Palomar Airport Road)

<u>Bicycle</u>

- Palomar Airport Road from Camino Vida Roble to Yarrow Drive
- Palomar Airport Road from Yarrow Drive to the Lowes Shopping Center Driveway (at 2501 Palomar Airport Road)

<u>Transit</u>

- Project frontage (northwest corner of intersection) to westbound transit stop on Yarrow Drive (200 feet south of Palomar Airport Road)
- Project frontage (northwest corner of intersection) to eastbound transit stop on Palomar Airport Road (200 feet east of Yarrow Drive)

Since Palomar Airport Road is classified as an Arterial Street, it is only subject to MMLOS standards for transit. Therefore this will be the only non-vehicular mode evaluated. Yarrow Drive is classified as an Industrial Street and is therefore subject to MMLOS standards for transit.

5.0 SIGNIFICANCE CRITERIA

This section provides significance criteria for vehicle-related traffic only. For a description and analysis of multimodal criteria, please refer to Section 12.0.

As outlined in the *City of Carlsbad's Growth Management Plan*, a traffic impact is considered to be significant if the addition of project traffic causes the intersection or street segment LOS to decrease to worse than (below) LOS D.

For intersections analyzed under the ICU methodology which are currently operating worse than LOS D, a project impact will be considered significant if the project causes the ICU value at an intersection to increase by more than 0.02. For street segments which are currently operating worse than LOS D, a project impact will be considered significant if the project causes the volume-to-capacity ratio at a segment to increase by more than 0.02. ***Table 5–1*** shows the thresholds. For intersections analyzed under the HCM methodology which are currently operating worse than LOS D, a project impact will be considered significant if the project causes the delay at an intersection to increase more than 2 seconds (see ***Table 5–2***).

TABLE 5–1
CITY OF CARLSBAD
TRAFFIC IMPACT SIGNIFICANT THRESHOLDS (ICU) FOR EXISTING CONDITIONS

LOS[a] without Project	Allowable Increase Due to Project Impacts	
	Roadway Segments (V/C)[b]	Intersections (ICU)[c]
A,B,C,D	A project's impact is deemed significant if the LOS is degraded to LOS E or F	
E, F	0.02	0.02

Footnotes:

a. LOS = Level of Service
b. V/C = Volume to Capacity Ratio
c. ICU = Intersection Capacity Utilization

TABLE 5–2
TRAFFIC IMPACT SIGNIFICANT THRESHOLDS FOR INTERSECTIONS (HCM) FOR NEAR-TERM AND LONG-TERM CONDITIONS

LOS with Project[a]	Allowable Increase Due to Project Impacts[b]
	HCM Delay (sec.)
E & F	2

Footnotes:

a. All level of service measurements are based upon HCM procedures for peak-hour conditions. The acceptable LOS for intersections is LOS "D" in the City of Carlsbad during peak periods.

b. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Transportation Impact Analysis [TIA] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above), or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impact changes.

General Notes:

1. Delay = Average stopped delay per vehicle measured in seconds for intersections, or minutes for ramp meters.
2. LOS = Level of Service

The project may also trigger a significant impact should the increase in traffic be substantial in relation to the existing street or site-access capacity causing congestion, increased delays / queuing or result in an unsafe condition. The project's impact shall also be reviewed on a non-motorized basis to ensure the needs of all users of the roadway are met including pedestrians, bicyclists, users of public transit, children, the elderly, and the disabled.

6.0 ANALYSIS OF EXISTING CONDITIONS

6.1 Peak Hour Intersection Levels of Service

AM and PM peak hour analysis of the study area intersections under existing conditions was performed using the ICU Methodology, consistent with the City's practice and their *Growth Management Plan*.

Table 6–1 shows that, under existing conditions, all study area intersections are calculated to currently operate at LOS D or better.

Appendix C contains the intersection analysis worksheets for the Existing scenario.

6.2 Peak Hour Street Segment Levels of Service

Analysis of the study area street segments was performed using the methodology outlined in *Section 5* of this report. ***Table 6–2*** shows that all of the study area street segments are calculated to operate at LOS B or better during both AM and PM peak hours.

TABLE 6–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			ICU[a]	LOS[b]
1. Canon Road / Faraday Avenue	Signal	AM PM	0.47 0.51	A A
2. El Camino Real / College Boulevard	Signal	AM PM	0.52 0.61	A B
3. College Boulevard / Faraday Avenue	Signal	AM PM	0.54 0.44	A A
4. El Camino Real / Faraday Avenue	Signal	AM PM	0.70 0.77	B C
5. I-5 SB Ramps / Palomar Airport Road	Signal	AM PM	0.57 0.44	A A
6. I-5 NB Ramps / Palomar Airport Road	Signal	AM PM	0.68 0.63	B B
7. Palomar Airport Road / Paseo Del Norte	Signal	AM PM	0.65 0.69	B B
8. Palomar Airport Road / Armada Drive	Signal	AM PM	0.61 0.70	B B
9. Palomar Airport Road / Hidden Valley Road	Signal	AM PM	0.62 0.75	B C
10. Palomar Airport Road / College Boulevard	Signal	AM PM	0.59 0.72	A C
11. Palomar Airport Road / Camino Vida Roble	Signal	AM PM	0.59 0.77	A C
12. Palomar Airport Road / Yarrow Drive	Signal	AM PM	0.49 0.67	A B
13. Palomar Airport Road / El Camino Real	Signal	AM PM	0.64 0.82	B D
14. Palomar Airport Road / Loker Avenue	Signal	AM PM	0.78 0.74	C C
15. Palomar Airport Road / El Fuerte Street	Signal	AM PM	0.69 0.84	B D
16. Palomar Airport Road / Melrose Drive	Signal	AM PM	0.90 0.70	D B

TABLE 6–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			ICU[a]	LOS[b]
17. El Camino Real / Town Garden Road	Signal	AM PM	0.51 0.64	A B
18. El Camino Real / Camino Vida Roble	Signal	AM PM	0.51 0.58	A A
19. El Camino Real / Poinsettia Lane	Signal	AM PM	0.44 0.50	A A

Footnotes:
a. Intersection Capacity Utilization (see *Appendix C*)
b. Level of Service (see *Appendix C*)

ICU	LOS
0.0 ≤ 0.60	A
0.61 to 0.70	B
0.71 to 0.80	C
0.81 to 0.90	D
0.91 to 1.00	E
> 1.00	F

TABLE 6–2
EXISTING STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Classification	Direction	Capacity (LOS E) [a]	AM Peak Hour			PM Peak Hour		
				Volume	LOS [b]	V/C	Volume	LOS	V/C
Palomar Airport Road									
I-5 Ramps to Paseo Del Norte	6-lane Prime Arterial	EB	5,400	2,689	A	0.498	1,684	A	0.312
		WB	5,400	1,213	A	0.225	2,488	A	0.461
Paseo Del Norte to Armada Drive	6-lane Prime Arterial	EB	5,400	2,619	A	0.485	1,593	A	0.295
		WB	5,400	1,194	A	0.221	2,634	A	0.488
Armada Drive to Hidden Valley Ranch	6-lane Prime Arterial	EB	5,400	2,503	A	0.464	1,729	A	0.320
		WB	5,400	1,351	A	0.250	2,789	A	0.516
Hidden Valley Ranch to College Boulevard	6-lane Prime Arterial	EB	5,400	2,455	A	0.455	2,149	A	0.398
		WB	5,400	1,301	A	0.241	2,294	A	0.425
College Boulevard to Camino Vida Roble	6-lane Prime Arterial	EB	5,400	1,851	A	0.343	1,406	A	0.260
		WB	5,400	1,183	A	0.219	1,911	A	0.354
Camino Vida Roble to Yarrow Drive	6-lane Prime Arterial	EB	5,400	1,521	A	0.282	2,088	A	0.387
		WB	5,400	1,347	A	0.249	1,338	A	0.248
Yarrow Drive to El Camino Real	6-lane Prime Arterial	EB	5,400	1,153	A	0.214	2,064	A	0.382
		WB	5,400	1,941	A	0.359	1,333	A	0.247
El Camino Real to Loker Avenue	6-lane Prime Arterial	EB	5,400	1,640	A	0.304	2,700	A	0.500
		WB	5,400	2,654	A	0.491	1,927	A	0.357
Loker Avenue to El Fuerte Street	6-lane Prime Arterial	EB	5,400	1,271	A	0.235	2,635	A	0.488
		WB	5,400	2,924	A	0.541	1,603	A	0.297
El Fuerte Street to Melrose Drive	6-lane Prime Arterial	EB	5,400	1,180	A	0.219	2,846	A	0.527
		WB	5,400	3,350	B	0.620	1,656	A	0.307
East of Melrose Drive	6-lane Prime Arterial	EB	5,400	1,090	A	0.202	2,270	A	0.420
		WB	5,400	1,761	A	0.326	1,157	A	0.214
El Camino Real									
North of College Boulevard	5-lane Prime Arterial	EB	3,600	2,479	B	0.689	1,158	A	0.322
		WB	5,400	671	A	0.124	2,522	A	0.467
College Boulevard to Faraday Avenue	6-lane Prime Arterial	NB	5,400	592	A	0.110	1,848	A	0.342
		SB	5,400	2,034	A	0..377	1,167	A	0.216

TABLE 6–2
EXISTING STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Classification	Direction	Capacity (LOS E) [a]	AM Peak Hour			PM Peak Hour		
				Volume	LOS [b]	V/C	Volume	LOS	V/C
Faraday Avenue to Palomar Airport Road	6-lane Prime Arterial	NB	5,400	1,092	A	0.202	1,642	A	0.304
		SB	5,400	1,699	A	0.315	1,729	A	0.320
Palomar Airport Road to Town Garden Center	6-lane Prime Arterial	NB	5,400	1,160	A	0.215	1,462	A	0.271
		SB	5,400	1,735	A	0.321	1,507	A	0.279
Town Garden Center to Camino Vida Roble	6-lane Prime Arterial	NB	5,400	1,423	A	0.264	1,523	A	0.282
		SB	5,400	1,497	A	0.277	1,859	A	0.344
Camino Vida Roble to Poinsettia Lane	5-lane Prime Arterial	NB	3,600	1,416	A	0.393	1,334	A	0.371
		SB	5,400	1,392	A	0.258	2,055	A	0.381
South of Poinsettia Lane	6-lane Prime Arterial	NB	5,400	1,510	A	0.280	1,682	A	0.311
		SB	5,400	1,501	A	0.278	2,067	A	0.383
College Boulevard									
Aston Avenue to Palomar Airport Road	4-lane Arterial	NB	3,600	1,117	A	0.310	473	A	0.131
		SB	3,600	388	A	0.108	969	A	0.269

Footnotes:

a. Capacities based on 1,800 vehicles per lane per hour

b. Level of Service.

c. Volume to Capacity.

7.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The trip generation rate for the Project is based on the rate outlined in the Institute of Transportation Engineers (ITE) Journal[1], in addition to a review of trip generation methodologies at other similarly sized airports[2], which results in a rate of 2.67 daily trips per enplanement. Peak hour trip rates were not supplied in the ITE article and therefore SANDAG peak hour percentages were utilized. The trip generation rate accounts for traffic generated by passengers, employees, and airport operations associated with the increase in enplanements. The Project will not augment the non-commercial uses at the airport and therefore, non-commercial land uses did not need to be accounted for in the trip generation calculations.

7.1.1 *Near-Term Project*

For the purposes of this analysis, the near-term study year was determined to be Year 2020. Near-Term study years are typically chosen using the closest future 5 year increment year when additional project traffic will be generated. Therefore, the year 2020 was utilized as the Near-Term analysis year. To determine the forecasted near-term daily enplanements listed below, annual enplanements for each Project alternative were interpolated to Year 2020[3] using the existing and Year 2036 annual enplanements shown in *Table 2–1*. As shown below in ***Table 7–1***, PAL1 averages a year-over-year increase of 15,227 annual enplanements per year and PAL2 averages a year-over-year increase of 28,743 annual enplanements per year. By Year 2020, the Project is calculated to generate a total of 61,040 annual enplanements under the PAL1 alternative and 115,105 annual enplanements under the PAL2 alternative. These Year 2020 annual enplanements were then multiplied by approximately 0.274% to obtain the average daily enplanements. For the purposes of this transportation analysis, the following enplanements were calculated for analyzing Project impacts in the Existing (Section 8.0) and Near-Term (Section 10.0) scenarios:

TABLE 7–1
NEAR-TERM AVERAGE DAILY ENPLANEMENTS

Planning Scenario	Yearly Increase in Enplanements	Annual Enplanements at Year 2020	Ratio of Daily/Annual Enplanements *	Average Daily Enplanements at Year 2020
PAL 1	15,227	61,040	0.274%	**168**
PAL 2	28,743	115,105	0.274%	**316**

*Ratio of 1÷365 days.
Note: rounded up to whole number.

[1] ITE Journal, Airport Trip Generation, May 1998 [2.67-2.74 ADT per enplanement for airports with less than 1 million passengers]
[2] San Luis Obispo County Regional Airport Master Plan Update, Final EA/EIR, July 2006 [2.67 ADT per enplanement]

Table 7–2 tabulates the near-term Project (PAL1) traffic generation. The near-term Project (PAL1) phase is calculated to generate approximately 449 ADT with 14 inbound / 9 outbound trips during the AM peak hour and 14 inbound / 13 outbound trips during the PM peak hour.

Table 7–3 tabulates the near-term Project (PAL2) traffic generation. The near-term Project (PAL2) phase is calculated to generate approximately 844 ADT with 26 inbound / 17 outbound trips during the AM peak hour and 26 inbound / 25 outbound trips during the PM peak hour.

TABLE 7–2
NEAR-TERM PROJECT (PAL1) TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour			
		Rate[a]	Volume	% of ADT[b]	In:Out Split	Volume In	Volume Out	% of ADT[b]	In:Out Split	Volume In	Volume Out
Airport	168 ENP	2.670 /ENP	449	5.0%	6:4	14	9	6.0%	5:5	14	13

Footnotes:

a. Trip generation rates obtained from "Airport Trip Generation" (ITE Journal, 1998) and San Luis Obispo County Regional Airport Master Plan Update, Final EA/EIR, July 2006.

b. Peak hour percentages obtained from SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002).*

General Notes:

1. ENP = enplanements

TABLE 7–3
NEAR-TERM PROJECT (PAL2) TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour			
		Rate[a]	Volume	% of ADT[b]	In:Out Split	Volume In	Volume Out	% of ADT[b]	In:Out Split	Volume In	Volume Out
Airport	316 ENP	2.670 /ENP	844	5.0%	6:4	26	17	6.0%	5:5	26	25

Footnotes:

a. Trip generation rates obtained from "Airport Trip Generation" (ITE Journal, 1998) and San Luis Obispo County Regional Airport Master Plan Update, Final EA/EIR, July 2006.

b. Peak hour percentages obtained from SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002).*

General Notes:

1. ENP = enplanements

7.1.2 *Long-Term Project*

For the Long-Term Project scenario analysis, the Year 2036 annual enplanements shown in *Table 2–1* were utilized. For the purpose of this transportation analysis, the following enplanements were calculated for analyzing Project impacts in the Long-Term (Section 11.0) scenarios:

- PAL1 = 835 average daily enplanements
- PAL2 = 1,575 average daily enplanements

Table 7–4 tabulates the long-term Project (PAL1) traffic generation. The long-term Project (PAL1) phase is calculated to generate approximately 2,230 ADT with 67 inbound / 45 outbound trips during the AM peak hour and 67 inbound / 67 outbound trips during the PM peak hour.

Table 7–5 tabulates the long-term Project (PAL2) traffic generation. The long-term Project (PAL2) phase is calculated to generate approximately 4,206 ADT with 127 inbound / 84 outbound trips during the AM peak hour and 127 inbound / 126 outbound trips during the PM peak hour.

TABLE 7–4
LONG-TERM PROJECT (PAL1) TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour			
		Rate[a]	Volume	% of ADT[b]	In:Out Split	Volume In	Volume Out	% of ADT[b]	In:Out Split	Volume In	Volume Out
Airport	835 ENP	2.670 /ENP	2,230	5.0%	6:4	67	45	6.0%	5:5	67	67

Footnotes:

a. Trip generation rates obtained from "Airport Trip Generation" (ITE Journal, 1998) and San Luis Obispo County Regional Airport Master Plan Update, Final EA/EIR, July 2006.

b. Peak hour percentages obtained from SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002).*

General Notes:

1. ENP = enplanements

TABLE 7–5
LONG-TERM PROJECT (PAL2) TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour			
		Rate[a]	Volume	% of ADT[b]	In:Out Split	Volume In	Volume Out	% of ADT[b]	In:Out Split	Volume In	Volume Out
Airport	1,575 ENP	2.670 /ENP	4,206	5.0%	6:4	127	84	6.0%	5:5	127	126

Footnotes:

a. Trip generation rates obtained from "Airport Trip Generation" (ITE Journal, 1998) and San Luis Obispo County Regional Airport Master Plan Update, Final EA/EIR, July 2006.

b. Peak hour percentages obtained from SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002).*

General Notes:

1. ENP = enplanements

7.2 Trip Distribution/Assignment

Project-generated traffic was distributed and assigned to the street system based on existing and historical traffic counts, the distribution of traffic at the Project access point, the proximity of the Project to Interstate 5 and arterials, and locations of residences and places of employment.

Figure 7–1 depicts the AM/PM peak hour Project traffic distribution percentages. ***Figure 7–2*** depicts the near-term Project (PAL1) assignment for the Existing + Project and Near-Term scenarios. ***Figure 7–3*** depicts the near-term Project (PAL2) assignment for the Existing + Project and Near-Term scenarios. ***Figure 7–4*** depicts the long-term Project (PAL1) assignment for the Long-Term scenarios. ***Figure 7–5*** depicts the long-term Project (PAL2) assignment for the Long-Term scenarios.

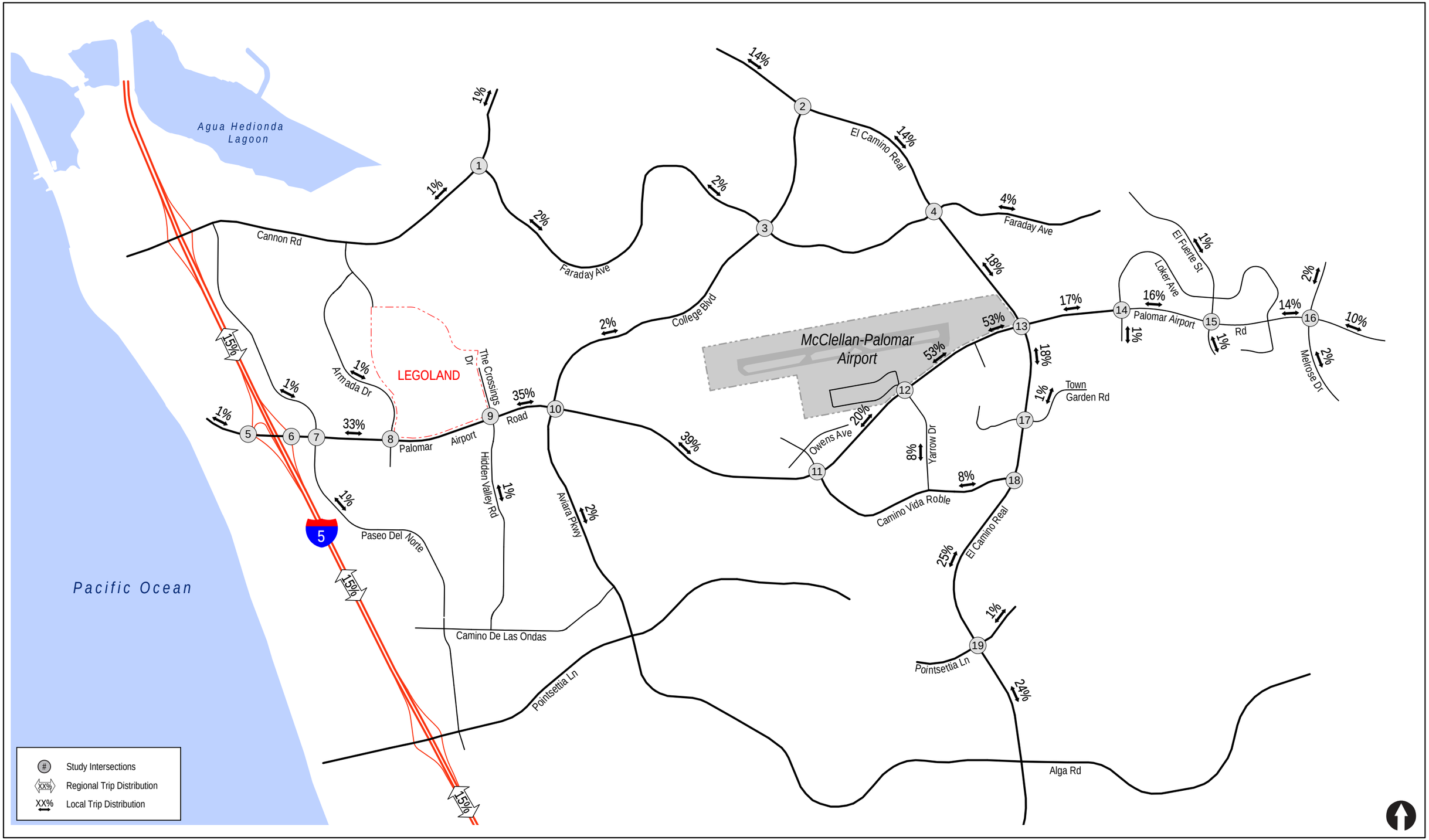

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Figure 7-1

Project Traffic Distribution

McClellan-Palomar Airport Master Plan

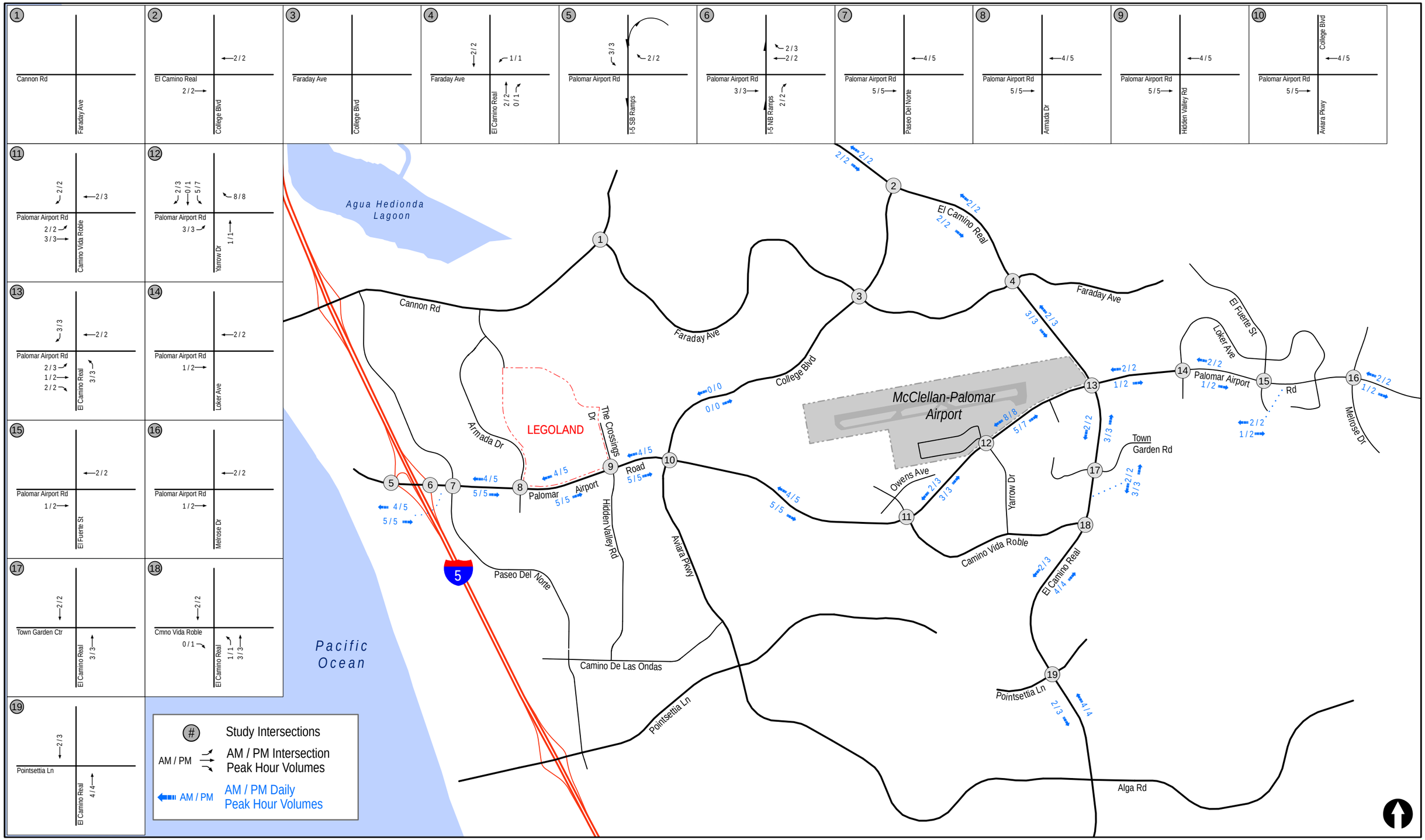

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Figure 7-2

Near-Term (PAL 1) Project Traffic Volumes

McClellan-Palomar Airport Master Plan

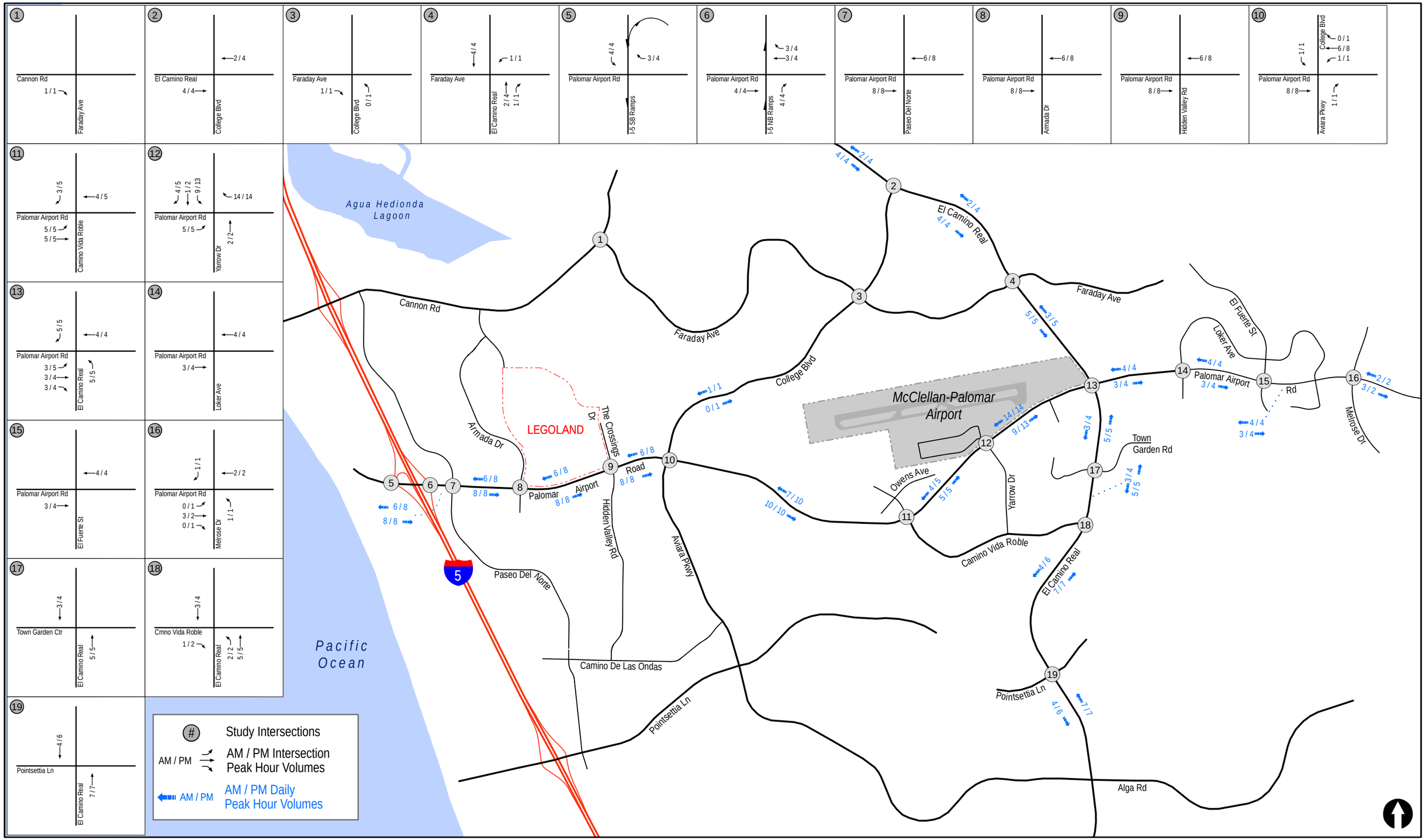

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Figure 7-3

Near-Term (PAL 2) Project Traffic Volumes

McClellan-Palomar Airport Master Plan

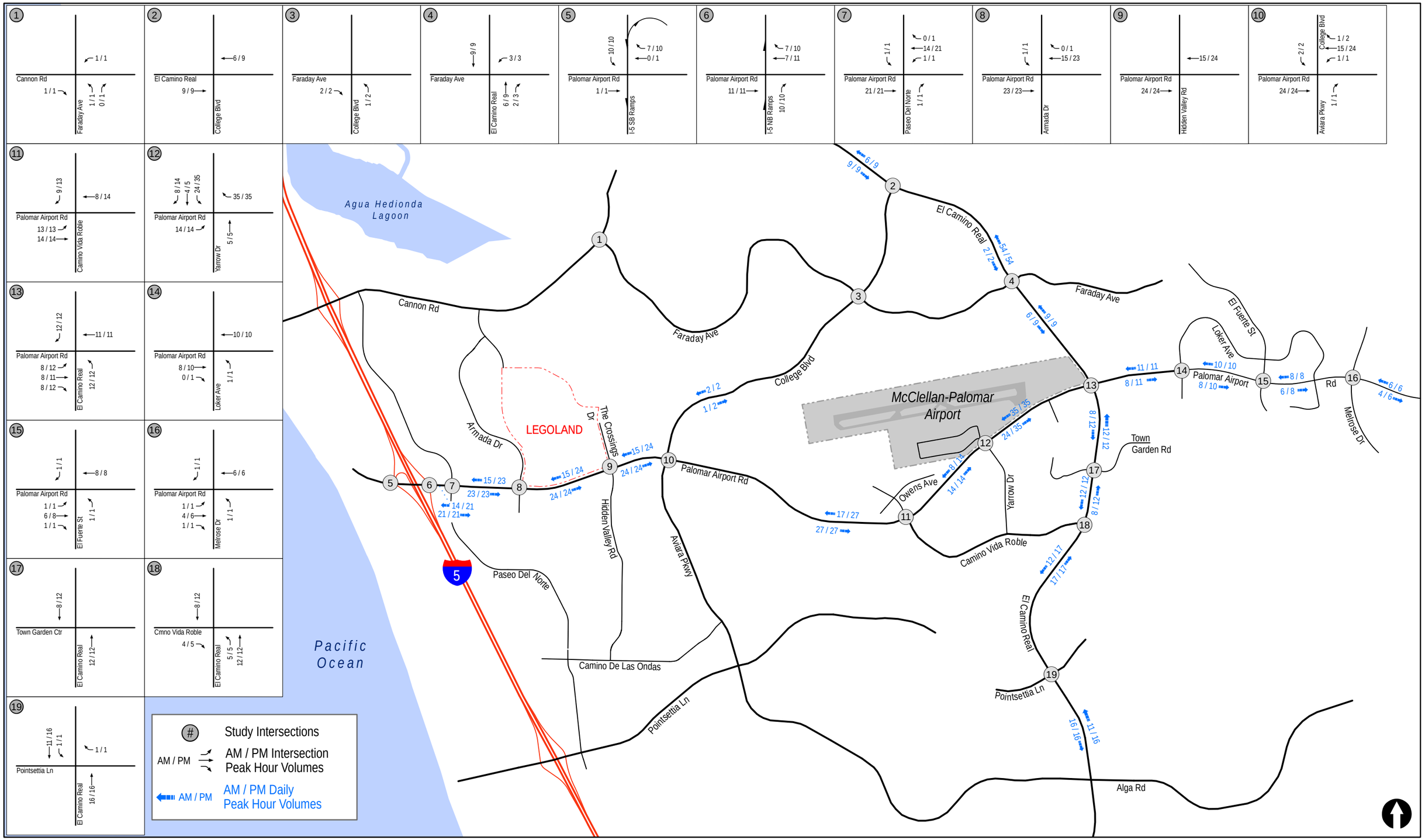

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Figure 7-4

Long-Term (PAL1) Project Traffic Volumes

McCLELLAN-PALOMAR AIRPORT MASTER PLAN

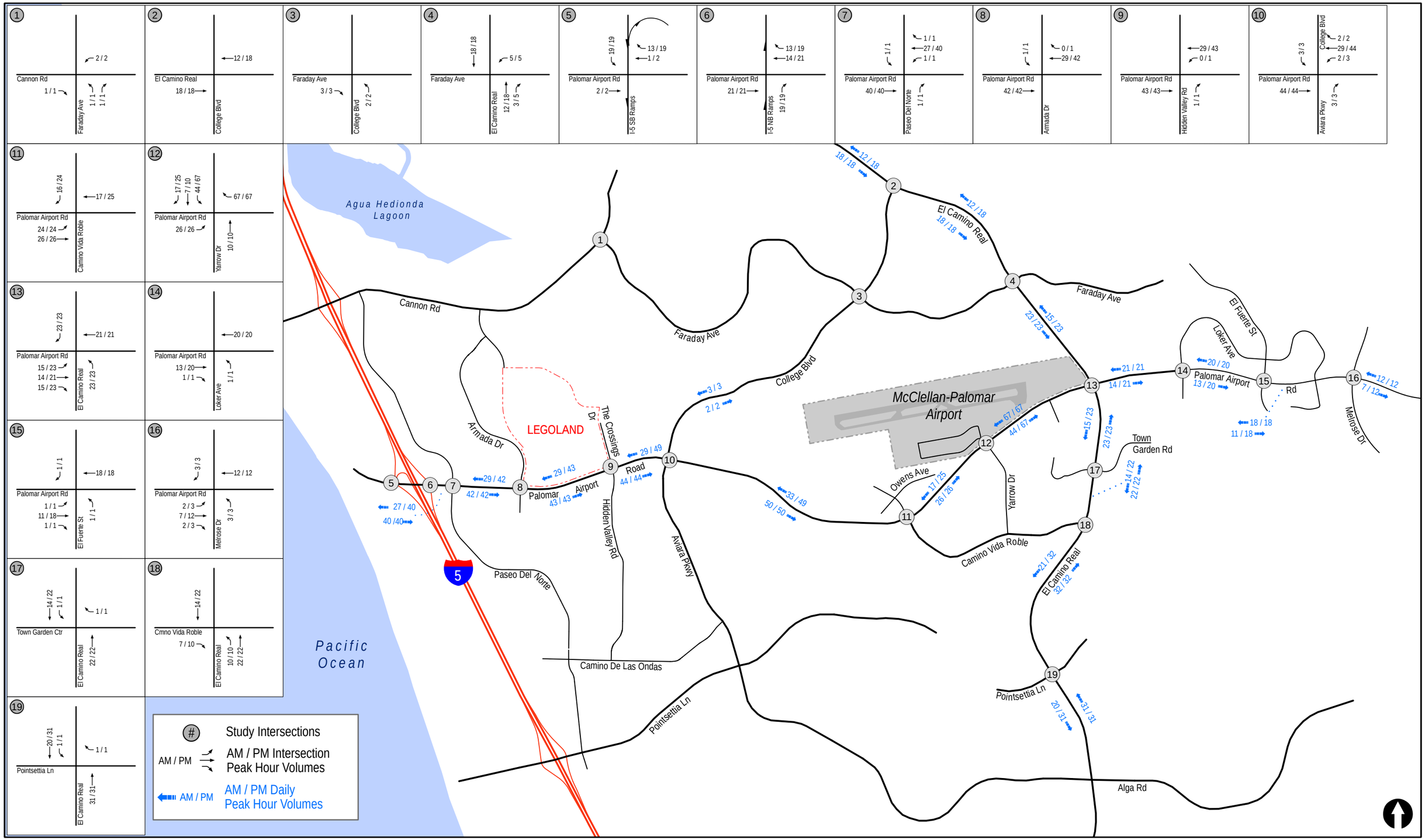

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Figure 7-5

Long-Term (PAL 2) Project Traffic Volumes

McClellan-Palomar Airport Master Plan

8.0 ANALYSIS OF EXISTING + PROJECT SCENARIOS

8.1 Existing + Project (PAL1)

Figure 8–1 depicts the Existing + Near-Term (PAL1) Project traffic volumes.

8.1.1 *Intersection Analysis*

Intersection capacity analyses were conducted for the study intersections under Existing + Project conditions. ***Table 8–1*** reports the Existing + Project (PAL1) intersection operations during the AM and PM peak hours. As shown in *Table 8–1*, all of the study area intersections are calculated to continue operate at LOS D or better with the addition of Project (PAL1) traffic.

Based on the significance criteria, no intersection impacts are calculated since the Project (PAL1) contribution does not exceed a 0.02 ICU increase.

Appendix D contains the intersection analysis worksheets for the Existing + Project (PAL1) scenario.

8.1.2 *Segment Operations*

Table 8–2 summarizes the street segment operations under Existing + Project (PAL1) conditions. As shown in *Table 8–2,* the study area segments are calculated to continue to operate acceptably at LOS B or better.

Based on the significance criteria, no street segment impact is calculated since the study area street segments are all calculated to operate at acceptable LOS.

8.2 Existing + Project (PAL2)

Figure 8–2 depicts the Existing + Near-Term (PAL2) Project traffic volumes.

8.2.1 *Intersection Analysis*

Table 8–1 reports the Existing + Project (PAL2) intersection operations during the AM and PM peak hours. As shown in *Table 8–1*, all of the study area intersections are calculated to continue operate at LOS D or better with the addition of Project (PAL2).

Based on the significance criteria, no intersection impacts are calculated since the Project (PAL2) contribution does not exceed a 0.02 ICU increase.

Appendix D contains the intersection analysis worksheets for the Existing + Project (PAL2) scenario.

8.2.2 *Segment Operations*

Table 8–2 summarizes the street segment operations under Existing + Project (PAL2) conditions. As shown in *Table 8–2,* the study area segments are calculated to continue to operate acceptably at LOS B or better.

Based on the significance criteria, no street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

TABLE 8–1
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing+ Project (PAL1)			Existing + Project (PAL2)		
			ICU[a]	LOS[b]	ICU	LOS	Δ[c]	ICU	LOS	Δ
1. Canon Road / Faraday Avenue	Signal	AM	0.47	A	0.47	A	0.00	0.47	A	0.00
		PM	0.51	A	0.51	A	0.00	0.51	A	0.00
2. El Camino Real / College Boulevard	Signal	AM	0.52	A	0.52	A	0.00	0.52	A	0.00
		PM	0.61	B	0.61	B	0.00	0.61	B	0.00
3. College Boulevard / Faraday Avenue	Signal	AM	0.54	A	0.54	A	0.00	0.54	A	0.00
		PM	0.44	A	0.44	A	0.00	0.44	A	0.00
4. El Camino Real / Faraday Avenue	Signal	AM	0.70	B	0.70	B	0.00	0.70	B	0.00
		PM	0.77	C	0.77	C	0.00	0.77	C	0.00
5. I-5 SB Ramps / Palomar Airport Road	Signal	AM	0.57	A	0.57	A	0.00	0.57	A	0.00
		PM	0.44	A	0.44	A	0.00	0.44	A	0.00
6. I-5 NB Ramps / Palomar Airport Road	Signal	AM	0.68	B	0.68	B	0.00	0.68	B	0.00
		PM	0.63	B	0.64	B	0.01	0.63	B	0.00
7. Palomar Airport Road / Paseo Del Norte	Signal	AM	0.65	B	0.65	B	0.00	0.65	B	0.00
		PM	0.69	B	0.69	B	0.00	0.69	B	0.00
8. Palomar Airport Road / Armada Drive	Signal	AM	0.61	B	0.61	B	0.00	0.61	B	0.00
		PM	0.70	B	0.70	B	0.00	0.70	B	0.00
9. Palomar Airport Road / Hidden Valley Road	Signal	AM	0.62	B	0.62	B	0.00	0.62	B	0.00
		PM	0.75	C	0.75	C	0.00	0.75	C	0.00
10. Palomar Airport Road / College Boulevard	Signal	AM	0.59	A	0.59	A	0.00	0.59	A	0.00
		PM	0.72	C	0.72	C	0.00	0.72	C	0.00
11. Palomar Airport Road / Camino Vida Roble	Signal	AM	0.59	A	0.59	A	0.00	0.59	A	0.00
		PM	0.77	C	0.77	C	0.00	0.77	C	0.00
12. Palomar Airport Road / Yarrow Drive	Signal	AM	0.49	A	0.50	A	0.01	0.50	A	0.01
		PM	0.67	B	0.67	B	0.00	0.68	B	0.01
13. Palomar Airport Road / El Camino Real	Signal	AM	0.64	B	0.64	B	0.00	0.64	B	0.00
		PM	0.82	D	0.82	D	0.00	0.83	D	0.01
14. Palomar Airport Road / Loker Avenue	Signal	AM	0.78	C	0.78	C	0.00	0.78	C	0.00
		PM	0.74	C	0.74	C	0.00	0.74	C	0.00
15. Palomar Airport Road / El Fuerte Street	Signal	AM	0.69	B	0.69	B	0.00	0.69	B	0.00
		PM	0.84	D	0.84	D	0.00	0.84	D	0.00

TABLE 8–1
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing+ Project (PAL1)			Existing + Project (PAL2)		
			ICU[a]	LOS[b]	ICU	LOS	Δ[c]	ICU	LOS	Δ
16. Palomar Airport Road / Melrose Drive	Signal	AM	0.90	D	0.90	D	0.00	0.90	D	0.00
		PM	0.70	B	0.70	B	0.00	0.70	B	0.00
17. El Camino Real / Town Garden Road	Signal	AM	0.51	A	0.51	A	0.00	0.51	A	0.00
		PM	0.64	B	0.65	B	0.01	0.65	B	0.01
18. El Camino Real / Camino Vida Roble	Signal	AM	0.51	A	0.51	A	0.00	0.51	A	0.00
		PM	0.58	A	0.58	A	0.00	0.58	A	0.00
19. El Camino Real / Poinsettia Lane	Signal	AM	0.44	A	0.44	A	0.00	0.44	A	0.00
		PM	0.50	A	0.50	A	0.00	0.50	A	0.00

Footnotes:

a. Intersection Capacity Utilization
b. Level of Service
c. Δ denotes a Project induced increase in ICU

ICU	LOS
0.0 ≤ 0.60	A
0.61 to 0.70	B
0.71 to 0.80	C
0.81 to 0.90	D
0.91 to 1.00	E
> 1.00	F

TABLE 8–2
EXISTING + PROJECT STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing			Existing + PAL1				Existing + PAL2			
				Volumes	LOS [b]	V/C[c]	Volumes	LOS	V/C	Δ[d]	Volumes	LOS	V/C	Δ
Palomar Airport Road														
I-5 Ramps to Paseo Del Norte	EB	AM	5,400	2,689	A	0.498	2,694	A	0.499	0.001	2,697	A	0.499	0.001
		PM	5,400	1,684	A	0.312	1,689	A	0.313	0.001	1,692	A	0.313	0.001
	WB	AM	5,400	1,213	A	0.225	1,217	A	0.225	0.001	1,219	A	0.226	0.001
		PM	5,400	2,488	A	0.461	2,493	A	0.462	0.001	2,496	A	0.462	0.001
Paseo Del Norte to Armada Drive	EB	AM	5,400	2,619	A	0.485	2,624	A	0.486	0.001	2,627	A	0.486	0.001
		PM	5,400	1,593	A	0.295	1,598	A	0.296	0.001	1,601	A	0.296	0.001
	WB	AM	5,400	1,194	A	0.221	1,198	A	0.222	0.001	1,200	A	0.222	0.001
		PM	5,400	2,634	A	0.488	2,639	A	0.489	0.001	2,642	A	0.489	0.001
Armada Drive to Hidden Valley Ranch	EB	AM	5,400	2,503	A	0.464	2,508	A	0.464	0.000	2,511	A	0.465	0.001
		PM	5,400	1,729	A	0.320	1,734	A	0.321	0.001	1,737	A	0.322	0.002
	WB	AM	5,400	1,351	A	0.250	1,355	A	0.251	0.001	1,357	A	0.251	0.001
		PM	5,400	2,789	A	0.516	2,794	A	0.517	0.001	2,797	A	0.518	0.002
Hidden Valley Ranch to College Boulevard	EB	AM	5,400	2,455	A	0.455	2,460	A	0.456	0.001	2,463	A	0.456	0.001
		PM	5,400	2,149	A	0.398	2,154	A	0.399	0.001	2,157	A	0.399	0.001
	WB	AM	5,400	1,301	A	0.241	1,305	A	0.242	0.001	1,307	A	0.242	0.001
		PM	5,400	2,294	A	0.425	2,299	A	0.426	0.001	2,302	A	0.426	0.001
College Boulevard to Camino Vida Roble	EB	AM	5,400	1,851	A	0.343	1,856	A	0.344	0.001	1,861	A	0.345	0.002
		PM	5,400	1,406	A	0.260	1,411	A	0.261	0.001	1,416	A	0.262	0.002
	WB	AM	5,400	1,183	A	0.219	1,187	A	0.220	0.001	1,190	A	0.220	0.001
		PM	5,400	1,911	A	0.354	1,916	A	0.355	0.001	1,921	A	0.356	0.002
Camino Vida Roble to Yarrow Drive	EB	AM	5,400	1,521	A	0.282	1,524	A	0.282	0.000	1,526	A	0.283	0.001
		PM	5,400	2,088	A	0.387	2,091	A	0.387	0.000	2,093	A	0.388	0.001
	WB	AM	5,400	1,347	A	0.249	1,349	A	0.250	0.001	1,351	A	0.250	0.001
		PM	5,400	1,338	A	0.248	1,341	A	0.248	0.000	1,343	A	0.249	0.001
Yarrow Drive to El Camino Real	EB	AM	5,400	1,153	A	0.214	1,158	A	0.214	0.000	1,162	A	0.215	0.001
		PM	5,400	2,064	A	0.382	2,071	A	0.384	0.002	2,077	A	0.385	0.003
	WB	AM	5,400	1,941	A	0.359	1,949	A	0.361	0.002	1,955	A	0.362	0.003
		PM	5,400	1,333	A	0.247	1,341	A	0.248	0.001	1,347	A	0.249	0.002
El Camino Real to Loker Avenue	EB	AM	5,400	1,640	A	0.304	1,641	A	0.304	0.000	1,643	A	0.304	0.000
		PM	5,400	2,700	A	0.500	2,702	A	0.500	0.000	2,704	A	0.501	0.001
	WB	AM	5,400	2,654	A	0.491	2,656	A	0.492	0.001	2,658	A	0.492	0.001
		PM	5,400	1,927	A	0.357	1,929	A	0.357	0.000	1,931	A	0.358	0.001
Loker Avenue to El Fuerte Street	EB	AM	5,400	1,271	A	0.235	1,272	A	0.236	0.001	1,274	A	0.236	0.001
		PM	5,400	2,635	A	0.488	2,637	A	0.488	0.000	2,639	A	0.489	0.001
	WB	AM	5,400	2,924	A	0.541	2,926	A	0.542	0.001	2,928	A	0.542	0.001
		PM	5,400	1,603	A	0.297	1,605	A	0.297	0.000	1,607	A	0.298	0.001
El Fuerte Street to Melrose Drive	EB	AM	5,400	1,180	A	0.219	1,181	A	0.219	0.000	1,183	A	0.219	0.000
		PM	5,400	2,846	A	0.527	2,848	A	0.527	0.000	2,850	A	0.528	0.001
	WB	AM	5,400	3,350	B	0.620	3,352	B	0.621	0.001	3,354	B	0.621	0.001
		PM	5,400	1,656	A	0.307	1,658	A	0.307	0.000	1,660	A	0.307	0.000
East of Melrose Drive	EB	AM	5,400	1,090	A	0.202	1,091	A	0.202	0.000	1,093	A	0.202	0.000
		PM	5,400	2,270	A	0.420	2,272	A	0.421	0.001	2,272	A	0.421	0.001
	WB	AM	5,400	1,761	A	0.326	1,763	A	0.326	0.000	1,763	A	0..326	0.000
		PM	5,400	1,157	A	0.214	1,159	A	0.215	0.001	1,159	A	0.215	0.001
El Camino Real														
North of College Boulevard	EB	AM	3,600	2,479	B	0.689	2,481	B	0.689	0.000	2,483	B	0.690	0.001
		PM	3,600	1,158	A	0.322	1,160	A	0.322	0.000	1,162	A	0.323	0.001
	WB	AM	5,400	671	A	0.124	673	A	0.125	0.001	673	A	0.125	0.001
		PM	5,400	2,522	A	0.467	2,524	A	0.467	0.000	2,526	A	0.468	0.001
College Boulevard to Faraday Avenue	NB	AM	5,400	592	A	0.110	594	A	0.110	0.000	594	A	0.110	0.000
		PM	5,400	1,848	A	0.342	1,850	A	0.343	0.001	1,852	A	0.343	0.001
	SB	AM	5,400	2,034	A	0.377	2,036	A	0.377	0.000	2,038	A	0.377	0.000
		PM	5,400	1,167	A	0.216	1,169	A	0.216	0.000	1,171	A	0.217	0.001
Faraday Avenue to Palomar Airport Road	NB	AM	5,400	1,092	A	0.202	1,094	A	0.203	0.001	1,095	A	0.203	0.001
		PM	5,400	1,642	A	0.304	1,645	A	0.305	0.001	1,647	A	0.305	0.001
	SB	AM	5,400	1,699	A	0.315	1,702	A	0.315	0.000	1,704	A	0.316	0.001
		PM	5,400	1,729	A	0.320	1,732	A	0.321	0.001	1,734	A	0.321	0.001
Palomar Airport Road to Town Garden Road	NB	AM	5,400	1,160	A	0.215	1,163	A	0.215	0.000	1,165	A	0.216	0.001
		PM	5,400	1,462	A	0.271	1,465	A	0.271	0.000	1,467	A	0.272	0.001
	SB	AM	5,400	1,735	A	0.321	1,737	A	0.322	0.001	1,738	A	0.322	0.001
		PM	5,400	1,507	A	0.279	1,509	A	0.279	0.000	1,511	A	0.280	0.001
Town Garden Road to Camino Vida Roble	NB	AM	5,400	1,423	A	0.264	1,426	A	0.264	0.000	1,428	A	0.264	0.001
		PM	5,400	1,523	A	0.282	1,526	A	0.283	0.001	1,528	A	0.283	0.001
	SB	AM	5,400	1,497	A	0.277	1,499	A	0.278	0.001	1,500	A	0.278	0.001
		PM	5,400	1,859	A	0.344	1,861	A	0.345	0.001	1,863	A	0.345	0.001

TABLE 8–2
EXISTING + PROJECT STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing			Existing + PAL1				Existing + PAL2			
				Volumes	LOS [b]	V/C[c]	Volumes	LOS	V/C	Δ[d]	Volumes	LOS	V/C	Δ
Camino Vida Roble to Poinsettia Lane	NB	AM	3,600	1,416	A	0.393	1,420	A	0.394	0.001	1,423	A	0.395	0.002
		PM	3,600	1,334	A	0.371	1,338	A	0.372	0.001	1,341	A	0.373	0.001
	SB	AM	5,400	1,392	A	0.258	1,394	A	0.258	0.000	1,396	A	0.259	0.001
		PM	5,400	2,055	A	0.381	2,058	A	0.381	0.000	2,061	A	0.382	0.001
South of Poinsettia Lane	NB	AM	5,400	1,510	A	0.280	1,514	A	0.280	0.000	1,517	A	0.281	0.001
		PM	5,400	1,682	A	0.311	1,686	A	0.312	0.001	1,689	A	0.313	0.002
	SB	AM	5,400	1,501	A	0.278	1,503	A	0.278	0.000	1,505	A	0.279	0.001
		PM	5,400	2,067	A	0.383	2,070	A	0.383	0.000	2,073	A	0.384	0.001
College Road														
Aston Avenue to Palomar Airport Road	NB	AM	3,600	1,117	A	0.310	1,117	A	0.310	0.000	1,117	A	0.310	0.000
		PM	3,600	473	A	0.131	473	A	0.131	0.000	474	A	0.132	0.001
	SB	AM	3,600	388	A	0.108	388	A	0.108	0.000	389	A	0.108	0.000
		PM	3,600	969	A	0.269	969	A	0.269	0.000	970	A	0.269	0.000

Footnotes:

a. Capacities based on 1,800 vehicles per lane per hour
b. Level of Service.
c. Volume to Capacity.
d. Δ denotes a project-induced increase in the Volume to Capacity Ratio

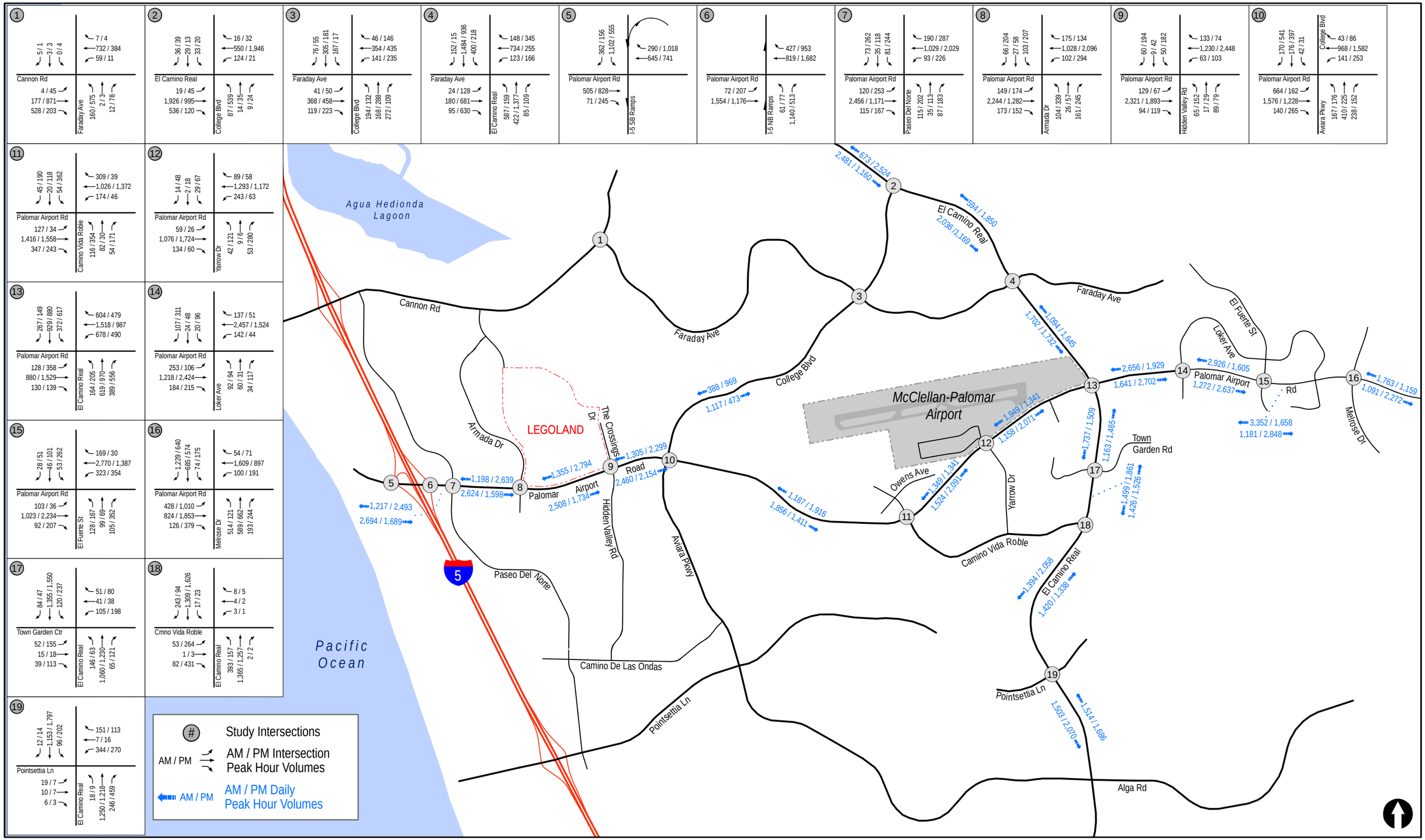

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Figure 8-1

Exisitng +Near Term Project (PAL1) Traffic Volumes McClellan-Palomar Airport Master Plan

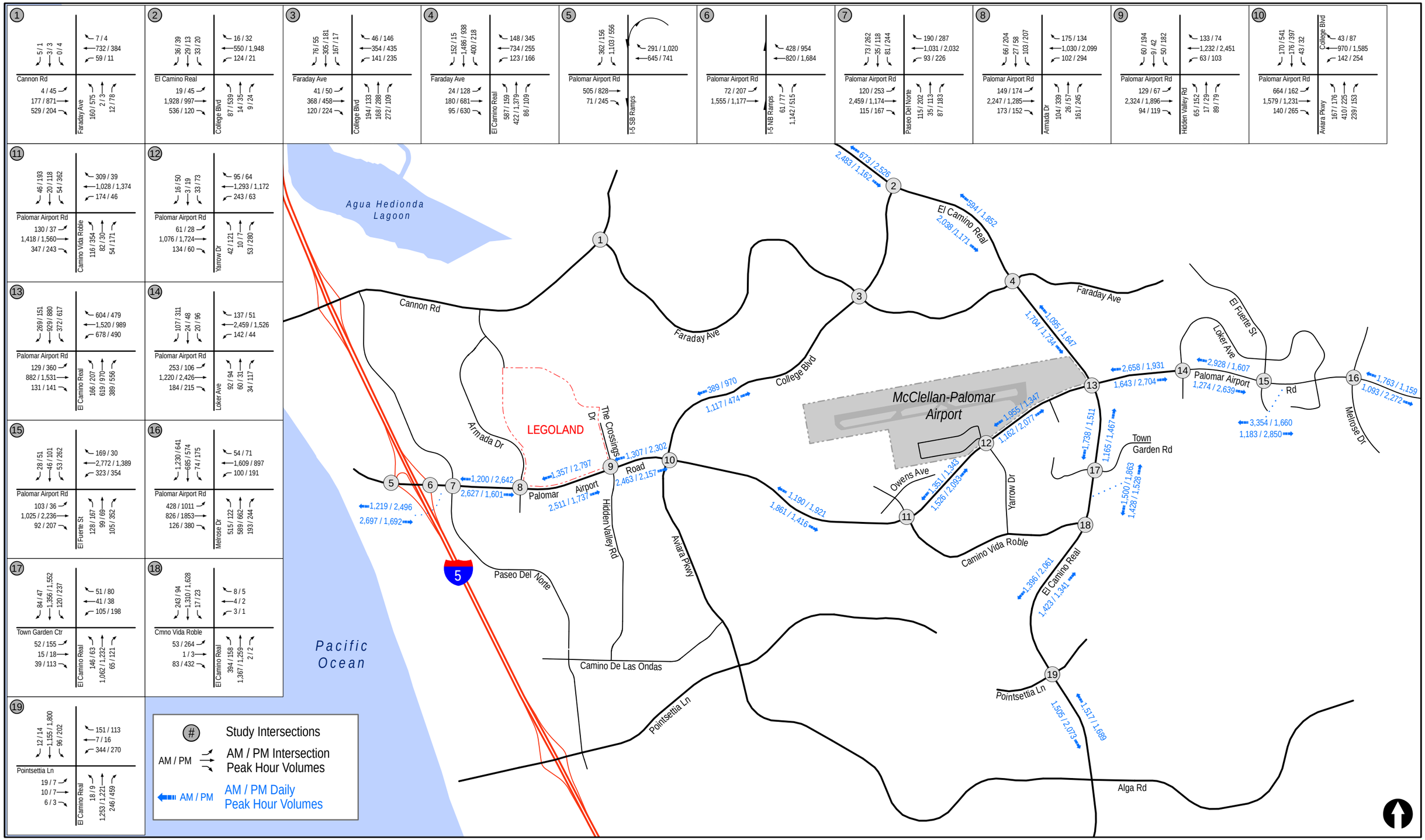

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Figure 8-2

Exisitng +Near Term Project (PAL2) Traffic Volumes

McClellan-Palomar Airport Master Plan

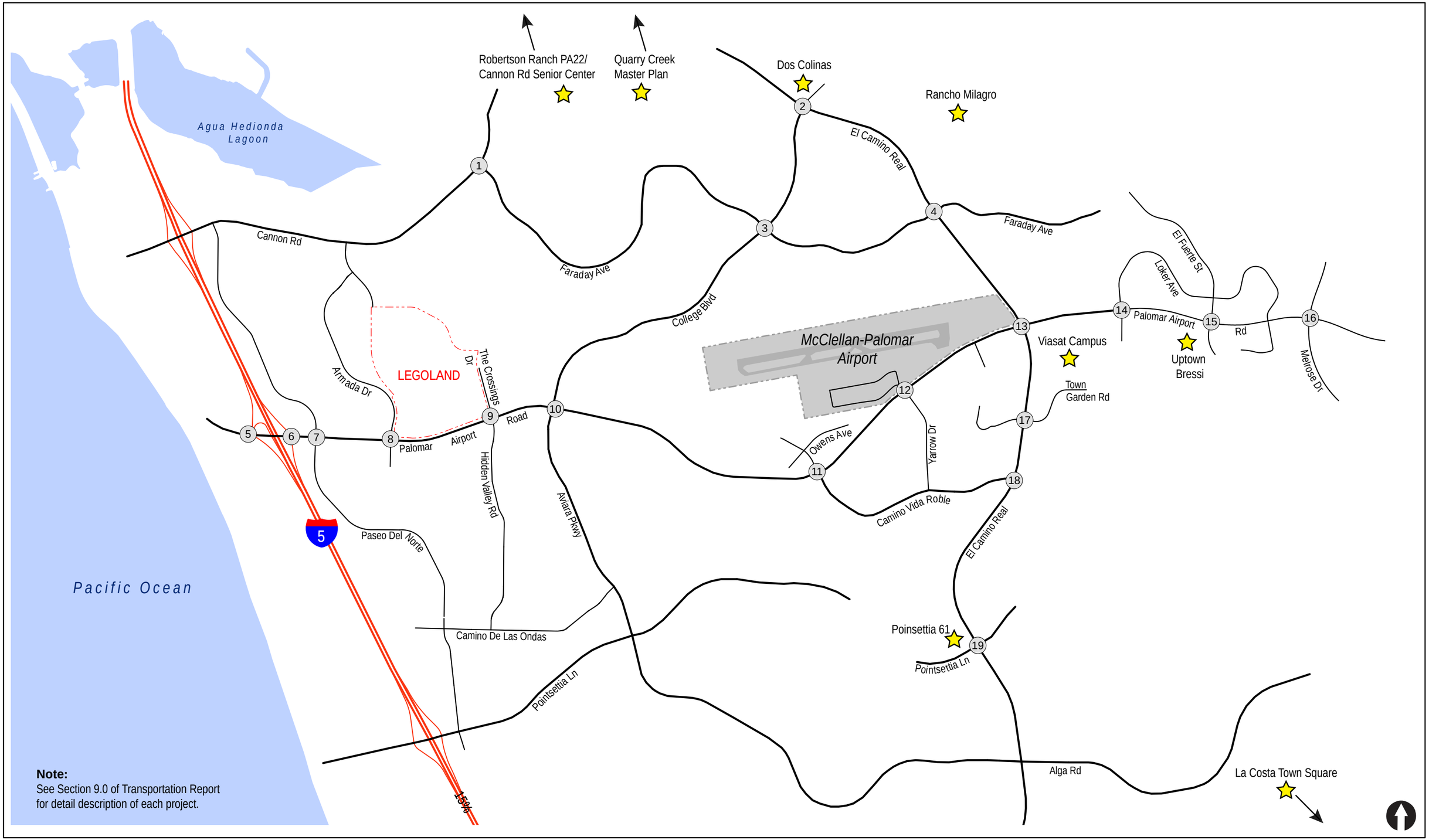
9.0 CUMULATIVE PROJECTS

To determine the Near-Term pre-Project (Existing + Cumulative) conditions in the Project study area, the forecasted traffic associated with several approved or pending projects was added to Existing traffic volumes. LLG coordinated with City staff to compile a list of relevant cumulative projects for inclusion in the analysis. Cumulative project traffic data through the study area is based on information from traffic impact studies prepared for the cumulative projects where available.

Table 9–1 lists the relevant cumulative projects that may add traffic to the study area locations. ***Figure 9–1*** shows the location of each cumulative project.

TABLE 9–1
CUMULATIVE PROJECTS LIST

Project Name	Project Description
Dos Colinas	A 47-acre site with a 309-unit continuing care facility plus 29 affordable housing units.
Rancho Milagro	22 estate single family units. The project is near College Boulevard, El Camino Real, and adjacent to Dos Colinas.
Robertson Ranch PA22/ Cannon Road Senior Housing	98 multi-family housing units. This project is located near El Camino Real and Cannon Road.
La Costa Town Square	A 284,400 square foot community shopping center with 128 condominium units, 64 single family units, and an additional 55,000 square feet designated for further residential use.
Viasat Campus	A 25 acre industrial project within the Bressi Ranch area. The project would be located east of El Camino Real between Gateway Road on the north and Town Garden Road to the south.
Quarry Creek Master Plan	This project includes 636 dwelling units, community facilities and a park and ride lot.
Poinsettia 61	140 single family dwelling units located on Poinsettia Lane just west of El Camino Real.
Uptown Bressi	This project consists of 17.7 acres of land proposed to be developed for mixed residential units and retail/commercial use.



Note:
See Section 9.0 of Transportation Report
for detail description of each project.

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Figure 9-1

Cumulative Projects Location Map

McClellan-Palomar Airport Master Plan

10.0 ANALYSIS OF NEAR-TERM SCENARIOS

This section discusses the Near-Term operations of the intersections and street segments in the Project study area.

10.1 Existing + Cumulative Projects

Based on the City of Carlsbad Mobility Element, scenarios including Cumulative trips were analyzed under HCM Methodology. Therefore, it should be noted that ***Table 10–1*** contains delays reported using HCM Methodology. ***Figure 10–1*** depicts the traffic volumes for the Existing + Cumulative Projects scenario.

10.1.1 *Intersection Analysis*

Table 10–1 reports the Existing + Cumulative Project intersection operations during the AM and PM peak hours. As shown in *Table 10–1*, all of the study area intersections are calculated to operate at LOS D or better except for the following intersections:

- El Camino Real / College Boulevard (LOS E during both the AM and PM peak hours)
- El Camino Real / Faraday Avenue (LOS E/F during the AM/PM peak hours)
- Palomar Airport Road / Camino Vida Roble (LOS E during the PM peak hour)
- Palomar Airport Road / El Camino Real (LOS F during both the AM and PM peak hours)
- Palomar Airport Road / Loker Avenue (LOS F/E during the AM/PM peak hours)
- Palomar Airport Road / El Fuerte Street (LOS F during the PM peak hour)
- Palomar Airport Road / Melrose Drive (LOS F/E during the AM/PM peak hours)
- El Camino Real / Town Garden Center (LOS E during both the AM and PM peak hours)
- El Camino Real / Camino Vida Roble (LOS F during the AM peak hour)

Appendix E contains the intersection analysis worksheets for the Existing + Cumulative Projects scenario.

10.1.2 *Segment Operations*

Table 10–2 summarizes the street segment operations under Existing + Cumulative Projects conditions during AM/PM peak hours in each direction. As shown in *Table 10–2*, the study are segments are calculated to operate acceptably at LOS C or better.

10.2 Existing + Cumulative Projects + Project (PAL1)

Figure 10–2 depicts the traffic volumes for the Existing + Cumulative Projects + Project (PAL1) scenario.

10.2.1 *Intersection Analysis*

Table 10–1 reports the Existing + Cumulative Projects + Project (PAL1) intersection operations during the AM and PM peak hours. As shown in *Table 10–1*, all of the study area intersections are calculated to continue operate at LOS D or better except for the following intersections:

- El Camino Real / College Boulevard (LOS E during both the AM and PM peak hours)
- El Camino Real / Faraday Avenue (LOS E/F during the AM/PM peak hours)
- Palomar Airport Road / Camino Vida Roble (LOS E during the PM peak hour)
- Palomar Airport Road / El Camino Real (LOS F during both the AM and PM peak hours)
- Palomar Airport Road / Loker Avenue (LOS F/E during the AM/PM peak hours)
- Palomar Airport Road / El Fuerte Street (LOS F during the PM peak hour)
- Palomar Airport Road / Melrose Drive (LOS F/E during the AM/PM peak hours)
- El Camino Real / Town Garden Center (LOS E during both the AM and PM peak hours)
- El Camino Real / Camino Vida Roble (LOS F during the AM peak hour)

Appendix E contains the intersection analysis worksheets for the Existing + Cumulative Projects + Project (PAL1) scenario.

Based on the significance criteria, no intersection impacts are calculated since the Project (PAL1) contribution does not exceed 2.0 seconds.

10.2.2 *Segment Operations*

Table 10–2 summarizes the street segment operations under Existing + Cumulative Projects + Project (PAL1) conditions. As shown in *Table 10–2*, the study area segments are calculated to continue to operate acceptably at LOS C or better.

Based on the significance criteria, no street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

10.3 Existing + Cumulative Projects + Project (PAL2)

Figure 10–3 depicts the traffic volumes for the Existing + Cumulative Projects + Project (PAL2) scenario.

10.3.1 *Intersection Analysis*

Table 10–1 reports the Existing + Cumulative Projects + Project (PAL2) intersection operations during the AM and PM peak hours. As shown in *Table 10–1*, all of the study area intersections are calculated to continue operate at LOS D or better except for the following intersections:

- El Camino Real / College Boulevard (LOS E during both the AM and PM peak hours)
- El Camino Real / Faraday Avenue (LOS E/F during the AM/PM peak hours)
- Palomar Airport Road / Camino Vida Roble (LOS E during the PM peak hour)

- Palomar Airport Road / El Camino Real (LOS F during both the AM and PM peak hours)
- Palomar Airport Road / Loker Avenue (LOS F/E during the AM/PM peak hours)
- Palomar Airport Road / El Fuerte Street (LOS F during the PM peak hour)
- Palomar Airport Road / Melrose Drive (LOS F/E during the AM/PM peak hours)
- El Camino Real / Town Garden Center (LOS E during both the AM and PM peak hours)
- El Camino Real / Camino Vida Roble (LOS F during the AM peak hour)

Appendix E contains the intersection analysis worksheets for the Existing + Cumulative Projects + Project (PAL2) scenario.

Based on the significance criteria, no intersection impacts are calculated since the Project (PAL2) contribution does not exceed 2.0 seconds.

10.3.2 *Segment Operations*

Table 10–2 summarizes the street segment operations under Existing + Cumulative Projects + Project (PAL2) conditions. As shown in *Table 10–2*, the study area segments are calculated to continue to operate acceptably at LOS C or better.

Based on the significance criteria, no street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

TABLE 10–1
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing + Cumulative Projects		Existing + Cumulative Projects + (Project) PAL1			Existing + Cumulative Projects + Project (PAL2)		
			Delay[a]	LOS[b]	Delay	LOS	Δ[c]	Delay	LOS	Δ
1. Canon Road / Faraday Avenue	Signal	AM	34.5	C	34.5	C	0.0	34.5	C	0.0
		PM	32.7	C	32.7	C	0.0	32.8	C	0.1
2. El Camino Real / College Boulevard	Signal	AM	65.1	E	65.3	E	0.2	65.5	E	0.4
		PM	78.0	E	78.0	E	0.0	78.0	E	0.0
3. College Boulevard / Faraday Avenue	Signal	AM	34.6	C	34.6	C	0.0	34.6	C	0.0
		PM	35.8	D	35.8	D	0.0	35.9	D	0.1
4. El Camino Real / Faraday Avenue	Signal	AM	67.9	E	68.2	E	0.3	68.4	E	0.5
		PM	105.9	F	105.9	F	0.0	106.0	F	0.1
5. I-5 SB Ramps / Palomar Airport Road	Signal	AM	11.3	B	11.3	B	0.0	11.3	B	0.0
		PM	8.0	A	8.0	A	0.0	8.0	A	0.0
6. I-5 NB Ramps / Palomar Airport Road	Signal	AM	44.4	D	44.5	D	0.1	44.6	D	0.2
		PM	39.0	D	39.2	D	0.2	39.4	D	0.4
7. Palomar Airport Road / Paseo Del Norte	Signal	AM	47.8	D	47.9	D	0.1	47.9	D	0.1
		PM	36.3	D	36.3	D	0.0	36.3	D	0.0
8. Palomar Airport Road / Armada Drive	Signal	AM	28.8	C	28.8	C	0.0	28.8	C	0.0
		PM	38.6	D	39.0	D	0.4	39.2	D	0.6
9. Palomar Airport Road / Hidden Valley Road	Signal	AM	27.9	C	28.3	C	0.4	28.6	C	0.7
		PM	48.0	D	48.1	D	0.1	48.1	D	0.1
10. Palomar Airport Road / College Boulevard	Signal	AM	31.8	C	31.9	C	0.1	31.9	C	0.1
		PM	51.5	D	51.7	D	0.2	51.8	D	0.3
11. Palomar Airport Road / Camino Vida Roble	Signal	AM	48.5	D	48.5	D	0.0	48.5	D	0.0
		PM	70.1	E	70.1	E	0.0	70.2	E	0.1

TABLE 10–1
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing + Cumulative Projects		Existing + Cumulative Projects + (Project) PAL1			Existing + Cumulative Projects + Project (PAL2)		
			Delay[a]	LOS[b]	Delay	LOS	Δ[c]	Delay	LOS	Δ
12. Palomar Airport Road / Yarrow Drive	Signal	AM	37.7	D	38.0	D	0.3	38.2	D	0.5
		PM	40.2	D	40.4	D	0.2	40.7	D	0.5
13. Palomar Airport Road / El Camino Real	Signal	AM	139.3	F	139.6	F	0.3	139.9	F	0.6
		PM	106.1	F	106.3	F	0.2	106.6	F	0.5
14. Palomar Airport Road / Loker Avenue	Signal	AM	82.1	F	82.3	F	0.2	82.6	F	0.5
		PM	65.1	E	65.2	E	0.1	65.3	E	0.2
15. Palomar Airport Road / El Fuerte Street	Signal	AM	50.8	D	51.0	D	0.2	51.2	D	0.4
		PM	125.2	F	125.4	F	0.2	125.6	F	0.4
16. Palomar Airport Road / Melrose Drive	Signal	AM	91.6	F	91.7	F	0.1	91.9	F	0.3
		PM	63.2	E	63.2	E	0.0	63.4	E	0.2
17. El Camino Real / Town Garden Road	Signal	AM	70.8	E	71.2	E	0.4	71.4	E	0.6
		PM	70.2	E	70.6	E	0.4	70.8	E	0.6
18. El Camino Real / Camino Vida Roble	Signal	AM	139.1	F	139.8	F	0.7	140.4	F	1.3
		PM	48.5	D	48.8	D	0.3	49.1	D	0.6
19. El Camino Real / Poinsettia Lane	Signal	AM	39.9	D	39.9	D	0.0	39.9	D	0.0
		PM	41.7	D	41.7	D	0.0	41.7	D	0.0

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service
c. Δ denotes an increase in delay due to Project.

SIGNALIZED DELAY/LOS THRESHOLDS		UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 10–2
NEAR-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing + Cumulative Projects			Existing + Cumulative Projects + Project (PAL1)				Existing + Cumulative Projects + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ
Palomar Airport Road														
I-5 Ramps to Paseo Del Norte	EB	AM	5,400	2,830	A	0.524	2,835	A	0.525	0.001	2,838	A	0.526	0.001
		PM	5,400	1,790	A	0.331	1,795	A	0.332	0.001	1,798	A	0.333	0.001
	WB	AM	5,400	1,290	A	0.239	1,294	A	0.240	0.001	1,296	A	0.240	0.001
		PM	5,400	2,630	A	0.487	2,635	A	0.488	0.001	2,638	A	0.489	0.001
Paseo Del Norte to Armada Drive	EB	AM	5,400	2,770	A	0.513	2,775	A	0.514	0.001	2,778	A	0.514	0.001
		PM	5,400	1,710	A	0.317	1,715	A	0.318	0.001	1,718	A	0.318	0.001
	WB	AM	5,400	1,260	A	0.233	1,264	A	0.234	0.001	1,266	A	0.234	0.001
		PM	5,400	2,790	A	0.517	2,795	A	0.518	0.001	2,798	A	0.518	0.001
Armada Drive to Hidden Valley Ranch	EB	AM	5,400	2,640	A	0.489	2,645	A	0.490	0.001	2,648	A	0.490	0.001
		PM	5,400	1,850	A	0.343	1,855	A	0.344	0.001	1,858	A	0.344	0.001
	WB	AM	5,400	1,430	A	0.265	1,434	A	0.266	0.001	1,436	A	0.266	0.001
		PM	5,400	2,940	A	0.544	2,945	A	0.545	0.001	2,948	A	0.546	0.001
Hidden Valley Ranch to College Boulevard	EB	AM	5,400	2,600	A	0.481	2,605	A	0.482	0.001	2,608	A	0.483	0.001
		PM	5,400	2,280	A	0.422	2,285	A	0.423	0.001	2,288	A	0.424	0.001
	WB	AM	5,400	1,380	A	0.256	1,384	A	0.256	0.001	1,386	A	0.257	0.001
		PM	5,400	2,430	A	0.450	2,435	A	0.451	0.001	2,438	A	0.451	0.001
College Boulevard to Camino Vida Roble	EB	AM	5,400	1,970	A	0.365	1,975	A	0.366	0.001	1,980	A	0.367	0.002
		PM	5,400	1,520	A	0.281	1,525	A	0.282	0.001	1,530	A	0.283	0.002
	WB	AM	5,400	1,260	A	0.233	1,264	A	0.234	0.001	1,267	A	0.235	0.001
		PM	5,400	2,020	A	0.374	2,025	A	0.375	0.001	2,030	A	0.376	0.002
Camino Vida Roble to Yarrow Drive	EB	AM	5,400	1,610	A	0.298	1,613	A	0.299	0.001	1,615	A	0.299	0.001
		PM	5,400	2,210	A	0.409	2,213	A	0.410	0.001	2,215	A	0.410	0.001
	WB	AM	5,400	1,490	A	0.276	1,492	A	0.276	0.000	1,494	A	0.277	0.001
		PM	5,400	1,590	A	0.294	1,593	A	0.295	0.001	1,595	A	0.295	0.001

TABLE 10–2
NEAR-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing + Cumulative Projects			Existing + Cumulative Projects + Project (PAL1)				Existing + Cumulative Projects + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ
Yarrow Drive to El Camino Real	EB	AM	5,400	1,400	A	0.259	1,405	A	0.260	0.001	1,409	A	0.261	0.002
		PM	5,400	2,230	A	0.413	2,237	A	0.414	0.001	2,243	A	0.415	0.002
	WB	AM	5,400	2,110	A	0.391	2,118	A	0.392	0.001	2,124	A	0.393	0.003
		PM	5,400	1,600	A	0.296	1,608	A	0.298	0.001	1,614	A	0.299	0.003
El Camino Real to Loker Avenue	EB	AM	5,400	1,930	A	0.357	1,931	A	0.358	0.000	1,933	A	0.358	0.001
		PM	5,400	2,970	A	0.550	2,972	A	0.550	0.000	2,974	A	0.551	0.001
	WB	AM	5,400	2,850	A	0.528	2,852	A	0.528	0.000	2,854	A	0.529	0.001
		PM	5,400	2,130	A	0.394	2,132	A	0.395	0.000	2,134	A	0.395	0.001
Loker Avenue to El Fuerte Street	EB	AM	5,400	1,370	A	0.254	1,371	A	0.254	0.000	1,373	A	0.254	0.001
		PM	5,400	2,830	A	0.524	2,832	A	0.524	0.000	2,834	A	0.525	0.001
	WB	AM	5,400	3,090	A	0.572	3,092	A	0.573	0.000	3,094	A	0.573	0.001
		PM	5,400	1,700	A	0.315	1,702	A	0.315	0.000	1,704	A	0.316	0.001
El Fuerte Street to Melrose Drive	EB	AM	5,400	1,340	A	0.248	1,341	A	0.248	0.000	1,343	A	0.249	0.001
		PM	5,400	3,170	A	0.587	3,172	A	0.587	0.000	3,174	A	0.588	0.001
	WB	AM	5,400	3,610	B	0.669	3,612	B	0.669	0.000	3,614	B	0.669	0.001
		PM	5,400	2,140	A	0.396	2,142	A	0.397	0.000	2,144	A	0.397	0.001
East of Melrose Drive	EB	AM	5,400	1,160	A	0.215	1,161	A	0.215	0.000	1,163	A	0.215	0.001
		PM	5,400	2,400	A	0.444	2,402	A	0.445	0.000	2,402	A	0.445	0.000
	WB	AM	5,400	1,860	A	0.344	1,862	A	0.345	0.001	1,862	A	0.345	0.001
		PM	5,400	1,370	A	0.254	1,372	A	0.254	0.000	1,372	A	0.254	0.000
El Camino Real														
North of College Boulevard	EB	AM	3,600	2,640	C	0.733	2,642	C	0.734	0.001	2,644	C	0.734	0.001
		PM	3,600	1,280	A	0.356	1,282	A	0.356	0.001	1,284	A	0.357	0.001
	WB	AM	5,400	760	A	0.141	762	A	0.141	0.000	762	A	0.141	0.000
		PM	5,400	2,720	A	0.504	2,722	A	0.504	0.000	2,724	A	0.504	0.001

TABLE 10–2
NEAR-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing + Cumulative Projects			Existing + Cumulative Projects + Project (PAL1)				Existing + Cumulative Projects + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ
College Avenue to Faraday Avenue	NB	AM	5,400	930	A	0.172	932	A	0.173	0.000	932	A	0.173	0.000
		PM	5,400	2,070	A	0.383	2,072	A	0.384	0.000	2,074	A	0.384	0.001
	SB	AM	5,400	2,220	A	0.411	2,222	A	0.411	0.000	2,224	A	0.412	0.001
		PM	5,400	1,240	A	0.230	1,242	A	0.230	0.000	1,244	A	0.230	0.001
Faraday Avenue to Palomar Airport Road	NB	AM	5,400	1,550	A	0.287	1,552	A	0.287	0.000	1,553	A	0.288	0.001
		PM	5,400	1,760	A	0.326	1,763	A	0.326	0.001	1,765	A	0.327	0.001
	SB	AM	5,400	1,790	A	0.331	1,793	A	0.332	0.001	1,795	A	0.332	0.001
		PM	5,400	2,070	A	0.383	2,073	A	0.384	0.001	2,075	A	0.384	0.001
Palomar Airport Road to Town Garden Road	NB	AM	5,400	1,490	A	0.276	1,493	A	0.276	0.001	1,495	A	0.277	0.001
		PM	5,400	1,660	A	0.307	1,663	A	0.308	0.001	1,665	A	0.308	0.001
	SB	AM	5,400	2,090	A	0.387	2,092	A	0.387	0.000	2,093	A	0.388	0.001
		PM	5,400	1,690	A	0.313	1,692	A	0.313	0.000	1,694	A	0.314	0.001
Town Garden Road to Camino Vida Roble	NB	AM	5,400	1,510	A	0.280	1,513	A	0.280	0.001	1,515	A	0.281	0.001
		PM	5,400	1,610	A	0.298	1,613	A	0.299	0.001	1,615	A	0.299	0.001
	SB	AM	5,400	1,620	A	0.300	1,622	A	0.300	0.000	1,623	A	0.301	0.001
		PM	5,400	1,980	A	0.367	1,982	A	0.367	0.000	1,984	A	0.367	0.001
Camino Vida Roble to Poinsettia Lane	NB	AM	3,600	1,500	A	0.417	1,504	A	0.418	0.001	1,507	A	0.419	0.002
		PM	3,600	1,410	A	0.392	1,414	A	0.393	0.001	1,417	A	0.394	0.002
	SB	AM	5,400	1,480	A	0.274	1,482	A	0.274	0.000	1,484	A	0.275	0.001
		PM	5,400	2,180	A	0.404	2,183	A	0.404	0.001	2,186	A	0.405	0.001
South of Poinsettia Lane	NB	AM	5,400	1,600	A	0.296	1,604	A	0.297	0.001	1,607	A	0.298	0.001
		PM	5,400	1,790	A	0.331	1,794	A	0.332	0.001	1,797	A	0.333	0.001
	SB	AM	5,400	1,590	A	0.294	1,592	A	0.295	0.000	1,594	A	0.295	0.001
		PM	5,400	2,190	A	0.406	2,193	A	0.406	0.001	2,196	A	0.407	0.001

TABLE 10–2
NEAR-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Existing + Cumulative Projects			Existing + Cumulative Projects + Project (PAL1)				Existing + Cumulative Projects + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ
College Boulevard														
Aston Avenue to Palomar Airport Road	NB	AM	3,600	1,190	A	0.331	1,190	A	0.331	0.000	1,190	A	0.331	0.000
		PM	3,600	520	A	0.144	520	A	0.144	0.000	521	A	0.145	0.000
	SB	AM	3,600	420	A	0.117	420	A	0.117	0.000	421	A	0.117	0.000
		PM	3,600	1,030	A	0.286	1,030	A	0.286	0.000	1,031	A	0.286	0.000

Footnotes:

a. Capacities based on 1,800 vehicles per lane per hour

b. Level of Service.

c. Volume to Capacity.

d. Δ denotes a Project-induced increase in the Volume to Capacity Ratio

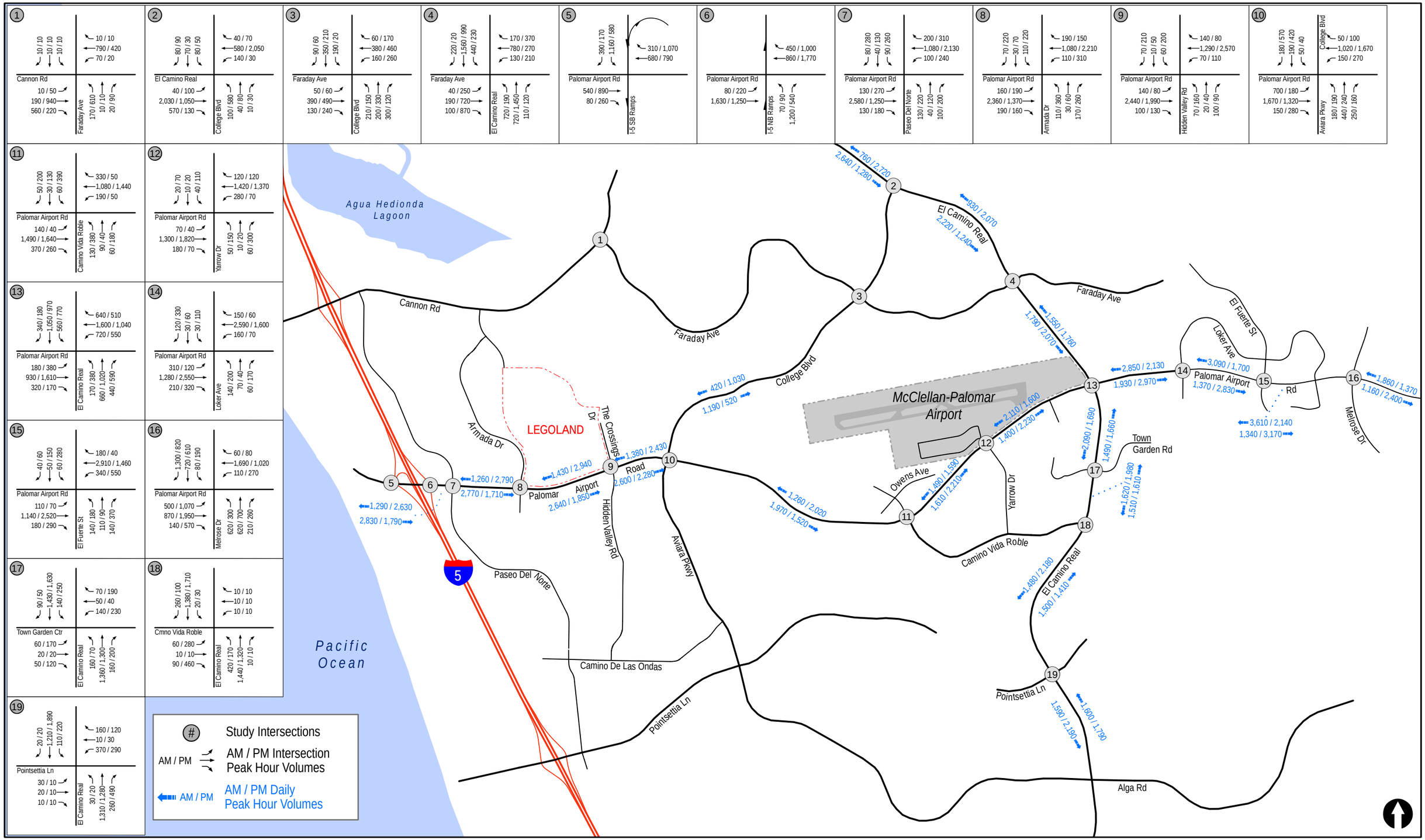

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Figure 10-1

Exisitng + Cumulative Projects Traffic Volumes

McClellan-Palomar Airport Master Plan

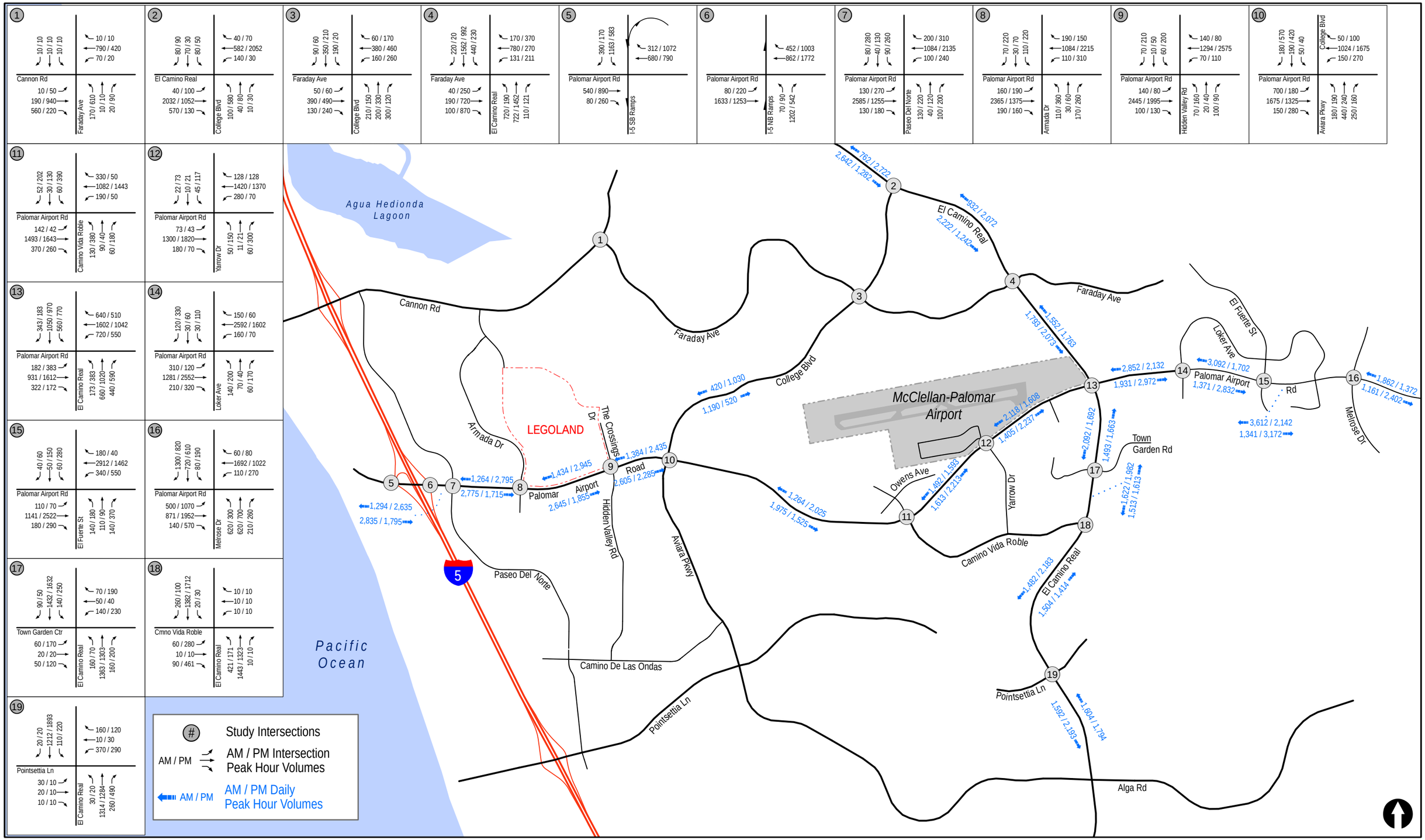

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Figure 10-2

Exisitng + Cumulative Projects + Near Term Project (PAL1) Traffic Volumes

McClellan-Palomar Airport Master Plan

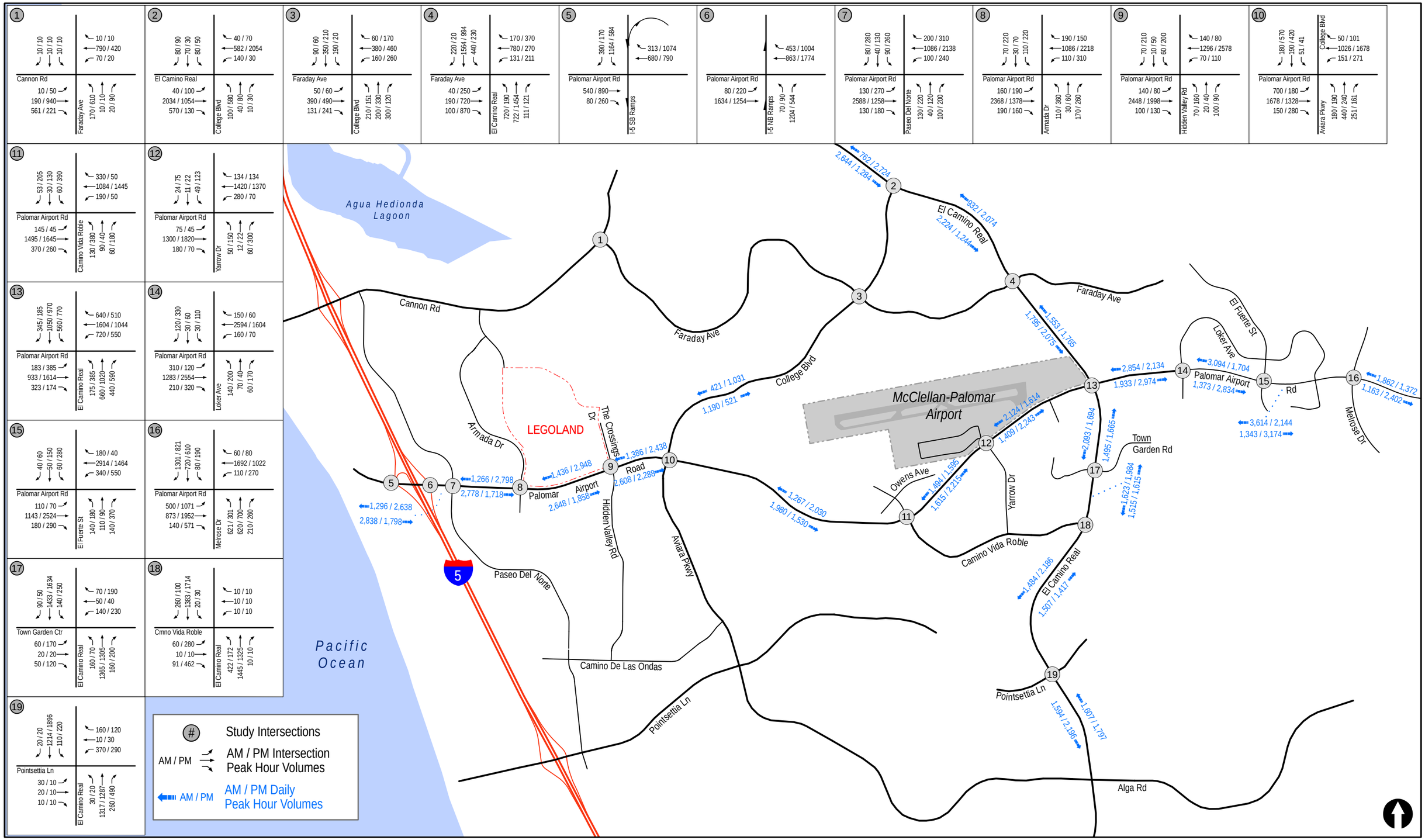

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Figure 10-3

Exisitng + Cumulative Projects + Near Term Project (PAL 2) Traffic Volumes

McClellan-Palomar Airport Master Plan

11.0 ANALYSIS OF LONG-TERM SCENARIOS

This section discusses the Long-Term (2036) operations of the intersections and street segments in the Project study area as required by the City of Carlsbad's *Growth Management Plan*.

11.1 Volumes Development

The SANDAG Series 13 Model forecast was used as the source to obtain long-term volumes for the study area locations. SANDAG forecasts volumes in 5-year increments and the Year 2035 volumes were chosen as the baseline to assess the Long-Term (Year 2036) potential impacts since it represents the closest forecast to the Project's long-term year. Peak hour volumes were estimated based on the model and partially on the existing relationship between ADT and peak hour volumes.

Several other traffic engineering principles and factors such as the K-factor (the proportion of daily volume that occurs during the peak period) and D-factor (the directional split of the traffic volumes) were also considered in the forecast analysis. The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and were compared to existing volumes for accuracy.

Figure 11–1 shows the Long-Term without Project traffic volumes. ***Figure 11–2*** shows the Long-Term with Project (PAL1) traffic volumes. ***Figure 11–3*** shows the Long-Term with Project (PAL2) traffic volumes.

11.2 Long-Term without Project

11.2.1 *Intersection Analysis*

Intersection capacity analyses were conducted for the study intersections under Long-Term conditions. ***Table 11–1*** reports the Long-Term intersection operations during the AM and PM peak hours. As shown in *Table 11–1*, the following intersections are calculated to operate at LOS D or better. All other locations are calculated to operate at LOS E or F.

- Cannon Rd / Faraday Avenue (LOS D during the AM peak hour)
- I-5 SB Ramps / Palomar Airport Road (LOS B/A during the AM/PM peak hours)
- I-5 NB Ramps / Palomar Airport Road (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Paseo Del Norte (LOS D during the PM peak hour)
- Palomar Airport Road / Armada Drive (LOS C during the AM peak hour)
- Palomar Airport Road / College Boulevard (LOS D during the AM peak hour)
- Palomar Airport Road / Camino Vida Roble (LOS D during the AM peak hour)
- Palomar Airport Road / Yarrow Drive (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Poinsettia Lane (LOS D during both the AM and PM peak hours)

Appendix F contains the intersection analysis worksheets for the Long-Term scenario.

11.2.2 *Segment Operations*

Long-Term street segment analyses were conducted for the study roadways. ***Table 11–2*** summarizes the street segment operations under Long-Term conditions. As shown in *Table 11–2*, the study area segments are calculated to operate at an acceptable LOS.

11.3 Long-Term + Project (PAL1)

11.3.1 *Intersection Analysis*

Table 11–1 reports the Long-Term + Project (PAL1) intersection operations during the AM and PM peak hours. As shown in *Table 11–1*, the following intersections are calculated to operate at LOS D or better:

- Cannon Rd / Faraday Avenue (LOS D during the AM peak hour)
- I-5 SB Ramps / Palomar Airport Road (LOS B/A during the AM/PM peak hours)
- I-5 NB Ramps / Palomar Airport Road (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Paseo Del Norte (LOS D during the PM peak hour)
- Palomar Airport Road / Armada Drive (LOS C during the AM peak hour)
- Palomar Airport Road / College Boulevard (LOS D during the AM peak hour)
- Palomar Airport Road / Camino Vida Roble (LOS D during the AM peak hour)
- Palomar Airport Road / Yarrow Drive (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Poinsettia Lane (LOS D during both the AM and PM peak hours)

Appendix F contains the intersection analysis worksheets for the Long-Term + Project (PAL1) scenario.

Based on the significance criteria, no intersection impacts are calculated since the Project (PAL1) contribution does not exceed 2.0 seconds.

11.3.2 *Segment Operations*

Long-Term street segments analyses were conducted for the study roadways. *Table 11-2* summarizes the street segment operations under Long-Term conditions. As shown in *Table 11-2*, the study area segments are calculated to operate at an acceptable LOS.

Based on the significance criteria, no street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

11.4 Long-Term + Project (PAL2)

11.4.1 *Intersection Analysis*

Table 11–1 reports the Long-Term + Project (PAL2) intersection operations during the AM and PM peak hours. As shown in *Table 11–1*, the following intersections are calculated to operate at LOS D or better:

- Cannon Rd / Faraday Avenue (LOS D during the AM peak hour)
- I-5 SB Ramps / Palomar Airport Road (LOS B/A during the AM/PM peak hours)
- I-5 NB Ramps / Palomar Airport Road (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Paseo Del Norte (LOS D during the PM peak hour)
- Palomar Airport Road / Armada Drive (LOS C during the AM peak hour)
- Palomar Airport Road / College Boulevard (LOS D during the AM peak hour)
- Palomar Airport Road / Camino Vida Roble (LOS D during the AM peak hour)
- Palomar Airport Road / Yarrow Drive (LOS D during both the AM and PM peak hours)
- Palomar Airport Road / Poinsettia Lane (LOS D during both the AM and PM peak hours)

Appendix F contains the intersection analysis worksheets for the Long-Term + Project (PAL2) scenario.

Based on the significance criteria, cumulative impacts are calculated at the following intersections because the Project's (PAL2) contribution would cause an increased delay of more than 2.0 seconds:

- **Palomar Airport Road / Camino Vida Roble**
- **Palomar Airport Road / El Camino Real**

11.4.2 *Segment Operations*

Long-Term street segments analyses were conducted for the study roadways. *Table 11-2* summarizes the street segment operations under Long-Term conditions. As shown in *Table 11-2*, the study area segments are calculated to operate at an acceptable LOS.

Based on the significance criteria, no street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

TABLE 11–1
LONG-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Long-Term without Project		Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]
1. Canon Road / Faraday Avenue	AM	43.1	D	43.2	D	0.1	No	43.3	D	0.2	No
	PM	63.1	E	63.5	E	0.4	No	63.5	E	0.4	No
2. El Camino Real / College Boulevard	AM	255.2	F	255.6	F	0.4	No	255.9	F	0.7	No
	PM	457.2	F	457.3	F	0.1	No	457.3	F	0.1	No
3. College Boulevard / Faraday Avenue	AM	65.7	E	66.0	E	0.3	No	66.2	E	0.5	No
	PM	77.2	E	77.6	E	0.4	No	77.7	E	0.5	No
4. El Camino Real / Faraday Avenue	AM	108.6	F	108.8	F	0.2	No	109.4	F	0.8	No
	PM	116.0	F	116.0	F	0.0	No	116.0	F	0.0	No
5. I-5 SB Ramps / Palomar Airport Road	AM	15.5	B	15.7	B	0.2	No	15.9	B	0.4	No
	PM	8.7	A	8.8	A	0.1	No	8.8	A	0.1	No
6. I-5 NB Ramps / Palomar Airport Road	AM	50.4	D	51.1	D	0.7	No	51.8	D	1.4	No
	PM	46.0	D	47.0	D	1.0	No	48.0	D	2.0	No
7. Palomar Airport Road / Paseo Del Norte	AM	63.4	E	64.2	E	0.8	No	64.8	E	1.4	No
	PM	40.5	D	40.6	D	0.1	No	40.6	D	0.1	No
8. Palomar Airport Road / Armada Drive	AM	32.6	C	32.9	C	0.3	No	32.9	C	0.3	No
	PM	72.5	E	72.7	E	0.2	No	74.3	E	1.8	No
9. Palomar Airport Road / Hidden Valley Road	AM	62.0	E	62.1	E	0.1	No	62.6	E	0.6	No
	PM	69.8	E	70.0	E	0.2	No	71.3	E	1.5	No

TABLE 11–1
LONG-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Long-Term without Project		Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]
10. Palomar Airport Road / College Boulevard	AM	37.2	D	38.0	D	0.8	No	38.8	D	1.6	No
	PM	74.0	E	74.0	E	0.0	No	75.5	E	1.5	No
11. Palomar Airport Road / Camino Vida Roble	AM	53.9	D	54.0	D	0.1	No	54.2	D	0.3	No
	PM	**92.9**	**F**	94.2	F	1.3	No	**95.4**	**F**	**2.5**	**Impact**
12. Palomar Airport Road / Yarrow Drive	AM	38.8	D	40.3	D	1.5	No	42.1	D	3.3	No
	PM	41.7	D	43.0	D	1.3	No	46.0	D	4.3	No
13. Palomar Airport Road / El Camino Real	AM	**168.4**	**F**	169.8	F	1.4	No	**171.1**	**F**	**2.7**	**Impact**
	PM	**126.2**	**F**	127.9	F	1.7	No	**130.9**	**F**	**4.7**	**Impact**
14. Palomar Airport Road / Loker Avenue	AM	114.9	F	115.9	F	1.0	No	116.8	F	1.9	No
	PM	91.7	F	92.7	F	1.0	No	93.3	F	1.6	No
15. Palomar Airport Road / El Fuerte Street	AM	85.6	F	86.4	F	0.8	No	87.3	F	1.7	No
	PM	138.1	F	138.8	F	0.7	No	139.7	F	1.6	No
16. Palomar Airport Road / Melrose Drive	AM	118.5	F	118.7	F	0.2	No	118.8	F	0.3	No
	PM	82.3	F	82.6	F	0.3	No	82.7	F	0.4	No
17. El Camino Real / Town Garden Road	AM	112.2	F	112.8	F	0.6	No	113.4	F	1.2	No
	PM	88.0	F	88.5	F	0.5	No	88.9	F	0.9	No
18. El Camino Real / Camino Vida Roble	AM	173.5	F	174.0	F	0.5	No	174.1	F	0.6	No
	PM	59.6	E	60.0	E	0.4	No	60.9	E	1.3	No

TABLE 11–1
LONG-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Long-Term without Project		Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]	Delay[a]	LOS[b]	Delay Increase	Sig?[c]
19. El Camino Real / Poinsettia Lane	AM	44.5	D	44.7	D	0.2	No	44.9	D	0.4	No
	PM	51.4	D	52.4	D	1.0	No	53.2	D	1.8	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service
c. Δ denotes an increase in delay due to Project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 11–2
LONG-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Long-Term without Project			Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ[d]
Palomar Airport Road														
I-5 Ramps to Paseo Del Norte	EB	AM	5,400	3,160	A	0.585	3,181	A	0.589	0.004	3,200	A	0.593	0.008
		PM	5,400	2,020	A	0.374	2,041	A	0.378	0.004	2,060	A	0.381	0.007
	WB	AM	5,400	1,460	A	0.270	1,474	A	0.273	0.003	1,487	A	0.275	0.005
		PM	5,400	2,910	A	0.539	2,931	A	0.543	0.004	2,950	A	0.546	0.007
Paseo Del Norte to Armada Drive	EB	AM	5,400	3,080	A	0.570	3,103	A	0.575	0.005	3,122	A	0.578	0.008
		PM	5,400	1,890	A	0.350	1,913	A	0.354	0.004	1,932	A	0.358	0.008
	WB	AM	5,400	1,430	A	0.265	1,445	A	0.268	0.003	1,459	A	0.270	0.005
		PM	5,400	3,110	A	0.576	3,133	A	0.580	0.004	3,152	A	0.584	0.008
Armada Drive to Hidden Valley Ranch	EB	AM	5,400	2,940	A	0.544	2,964	A	0.549	0.005	2,983	A	0.552	0.008
		PM	5,400	2,080	A	0.385	2,104	A	0.390	0.005	2,123	A	0.393	0.008
	WB	AM	5,400	1,620	A	0.300	1,635	A	0.303	0.003	1,649	A	0.305	0.005
		PM	5,400	3,250	B	0.602	3,274	B	0.606	0.004	3,293	B	0.610	0.008
Hidden Valley Ranch to College Boulevard	EB	AM	5,400	2,890	A	0.535	2,914	A	0.540	0.005	2,934	A	0.543	0.008
		PM	5,400	2,510	A	0.465	2,534	A	0.469	0.004	2,554	A	0.473	0.008
	WB	AM	5,400	1,580	A	0.293	1,595	A	0.295	0.002	1,609	A	0.298	0.005
		PM	5,400	2,720	A	0.504	2,744	A	0.508	0.004	2,764	A	0.512	0.008
College Boulevard to Camino Vida Roble	EB	AM	5,400	2,210	A	0.409	2,237	A	0.414	0.005	2,260	A	0.419	0.010
		PM	5,400	1,710	A	0.317	1,737	A	0.322	0.005	1,760	A	0.326	0.009
	WB	AM	5,400	1,400	A	0.259	1,417	A	0.262	0.003	1,433	A	0.265	0.006
		PM	5,400	2,230	A	0.413	2,257	A	0.418	0.005	2,279	A	0.422	0.009
Camino Vida Roble to Yarrow Drive	EB	AM	5,400	1,780	A	0.330	1,794	A	0.332	0.002	1,806	A	0.334	0.004
		PM	5,400	2,440	A	0.452	2,454	A	0.454	0.002	2,466	A	0.456	0.004
	WB	AM	5,400	1,660	A	0.307	1,668	A	0.309	0.002	1,677	A	0.311	0.004
		PM	5,400	1,750	A	0.324	1,764	A	0.327	0.003	1,775	A	0.329	0.005

TABLE 11–2
LONG-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Long-Term without Project			Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ[d]
Yarrow Drive to El Camino Real	EB	AM	5,400	1,490	A	0.276	1,514	A	0.280	0.004	1,534	A	0.284	0.008
		PM	5,400	2,450	A	0.454	2,485	A	0.460	0.006	2,517	A	0.466	0.012
	WB	AM	5,400	2,440	A	0.452	2,475	A	0.458	0.006	2,507	A	0.464	0.012
		PM	5,400	1,780	A	0.330	1,815	A	0.336	0.006	1,847	A	0.342	0.012
El Camino Real to Loker Avenue	EB	AM	5,400	2,030	A	0.376	2,038	A	0.377	0.001	2,044	A	0.379	0.003
		PM	5,400	3,200	A	0.593	3,211	A	0.595	0.002	3,221	A	0.596	0.003
	WB	AM	5,400	3,180	A	0.589	3,191	A	0.591	0.003	3,201	A	0.593	0.004
		PM	5,400	2,430	A	0.450	2,441	A	0.452	0.002	2,451	A	0.454	0.004
Loker Avenue to El Fuerte Street	EB	AM	5,400	1,580	A	0.293	1,588	A	0.294	0.001	1,593	A	0.295	0.002
		PM	5,400	3,240	B	0.600	3,250	B	0.602	0.002	3,260	B	0.604	0.004
	WB	AM	5,400	3,470	B	0.643	3,480	B	0.644	0.001	3,490	B	0.646	0.003
		PM	5,400	1,940	A	0.359	1,950	A	0.361	0.002	1,960	A	0.363	0.004
El Fuerte Street to Melrose Drive	EB	AM	5,400	1,470	A	0.272	1,476	A	0.273	0.001	1,481	A	0.274	0.002
		PM	5,400	3,330	B	0.617	3,338	B	0.618	0.001	3,348	B	0.620	0.003
	WB	AM	5,400	3,890	C	0.720	3,898	C	0.722	0.002	3,908	C	0.724	0.004
		PM	5,400	2,120	A	0.393	2,128	A	0.394	0.001	2,138	A	0.396	0.003
East of Melrose Drive	EB	AM	5,400	1,290	A	0.239	1,294	A	0.240	0.001	1,297	A	0.240	0.001
		PM	5,400	2,650	A	0.491	2,656	A	0.492	0.001	2,662	A	0.493	0.002
	WB	AM	5,400	2,090	A	0.387	2,096	A	0.388	0.001	2,102	A	0.389	0.002
		PM	5,400	1,400	A	0.259	1,406	A	0.260	0.001	1,412	A	0.261	0.002
El Camino Real														
North of College Boulevard	EB	AM	3,600	3,150	D	0.875	3,159	D	0.878	0.003	3,168	D	0.880	0.005
		PM	3,600	1,830	A	0.508	1,839	A	0.511	0.003	1,848	A	0.513	0.005
	WB	AM	5,400	1,180	A	0.219	1,186	A	0.220	0.001	1,192	A	0.221	0.002
		PM	5,400	3,430	B	0.635	3,439	B	0.637	0.002	3,448	B	0.639	0.004
College Boulevard to Faraday Avenue	NB	AM	5,400	970	A	0.180	976	A	0.181	0.001	982	D	0.182	0.002
		PM	5,400	2,510	A	0.465	2,519	A	0.466	0.002	2,528	A	0.468	0.003

TABLE 11–2
LONG-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Long-Term without Project			Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ[d]
Faraday Avenue to Palomar Airport Road	SB	AM	5,400	2,520	A	0.467	2,529	A	0.468	0.002	2,538	A	0.470	0.003
		PM	5,400	1,480	A	0.274	1,489	A	0.276	0.002	1,498	B	0.277	0.003
	NB	AM	5,400	1,660	A	0.307	1,668	A	0.309	0.002	1,675	A	0.310	0.003
		PM	5,400	2,080	A	0.385	2,092	A	0.387	0.002	2,103	A	0.389	0.004
	SB	AM	5,400	2,180	A	0.404	2,192	A	0.406	0.002	2,203	A	0.408	0.004
		PM	5,400	2,240	A	0.415	2,252	A	0.417	0.002	2,263	A	0.419	0.004
Palomar Airport Road to Town Garden Road	NB	AM	5,400	1,800	A	0.333	1,812	A	0.336	0.003	1,823	A	0.338	0.005
		PM	5,400	1,800	A	0.333	1,812	A	0.336	0.003	1,823	A	0.338	0.005
	SB	AM	5,400	2,290	A	0.424	2,298	A	0.426	0.002	2,305	A	0.427	0.003
		PM	5,400	1,880	A	0.348	1,892	A	0.350	0.002	1,903	A	0.352	0.004
Town Garden Road to Camino Vida Roble	NB	AM	5,400	1,680	A	0.311	1,692	A	0.313	0.002	1,702	A	0.315	0.004
		PM	5,400	1,790	A	0.331	1,802	A	0.334	0.003	1,812	A	0.336	0.005
	SB	AM	5,400	1,790	A	0.331	1,798	A	0.333	0.002	1,804	A	0.334	0.003
		PM	5,400	2,260	A	0.419	2,272	A	0.421	0.002	2,282	A	0.423	0.004
Camino Vida Roble to Poinsettia Lane	NB	AM	3,600	1,760	A	0.489	1,777	A	0.494	0.005	1,792	A	0.498	0.009
		PM	3,600	1,640	A	0.456	1,657	A	0.460	0.004	1,672	A	0.464	0.008
	SB	AM	5,400	1,640	A	0.304	1,652	A	0.306	0.002	1,661	A	0.308	0.004
		PM	5,400	2,420	A	0.448	2,437	A	0.451	0.003	2,452	A	0.454	0.006
South of Poinsettia Lane	NB	AM	5,400	1,870	A	0.346	1,886	A	0.349	0.003	1,901	A	0.352	0.006
		PM	5,400	2,060	A	0.381	2,076	A	0.384	0.003	2,091	A	0.387	0.006
	SB	AM	5,400	1,830	A	0.339	1,841	A	0.341	0.002	1,850	A	0.343	0.004
		PM	5,400	2,520	A	0.467	2,536	A	0.470	0.003	2,551	A	0.472	0.005

TABLE 11–2
LONG-TERM STREET SEGMENT OPERATIONS DURING PEAK HOURS

Street Segment	Direction	Peak Hour	Capacity (LOS E) [a]	Long-Term without Project			Long-Term + Project (PAL1)				Long-Term + Project (PAL2)			
				Volume	LOS [b]	V/C	Volume	LOS	V/C	Δ[d]	Volume	LOS	V/C	Δ[d]
College Boulevard														
Faraday Avenue to Palomar Airport Road	NB	AM	3,600	1,350	A	0.375	1,351	A	0.375	0.000	1,352	A	0.376	0.001
		PM	3,600	600	A	0.167	602	A	0.167	0.000	602	A	0.167	0.000
	SB	AM	3,600	490	A	0.136	492	A	0.137	0.001	493	A	0.137	0.001
		PM	3,600	1,180	A	0.328	1,182	A	0.328	0.000	1,183	A	0.329	0.001

Footnotes:

a. Capacities based on 1,800 vehicles per lane per hour

b. Level of Service.

c. Volume to Capacity

d. Δ denotes a Project-induced increase in the Volume to Capacity Ratio

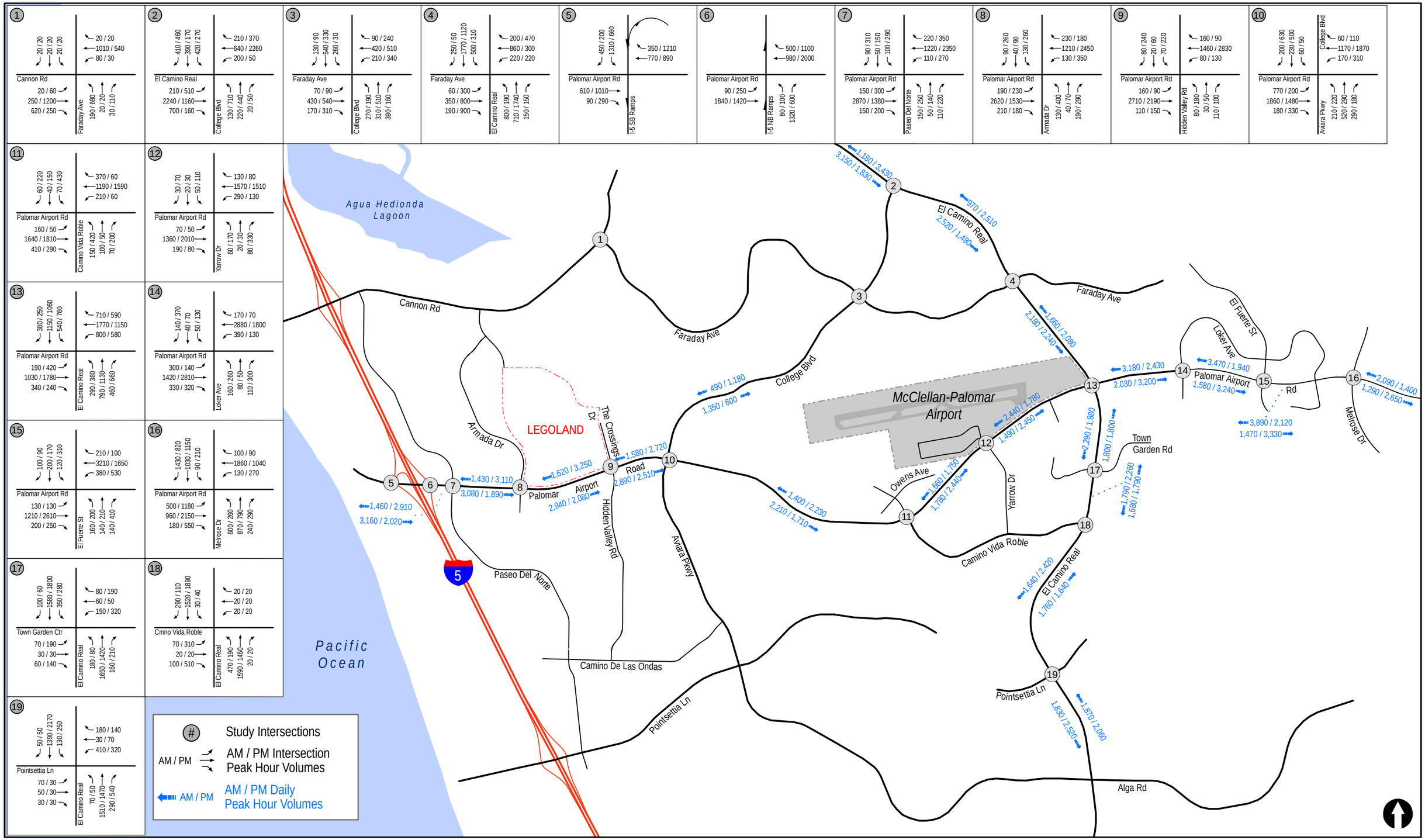

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Figure 11-1

Horizon Year Traffic Volumes

McClellan-Palomar Airport Master Plan

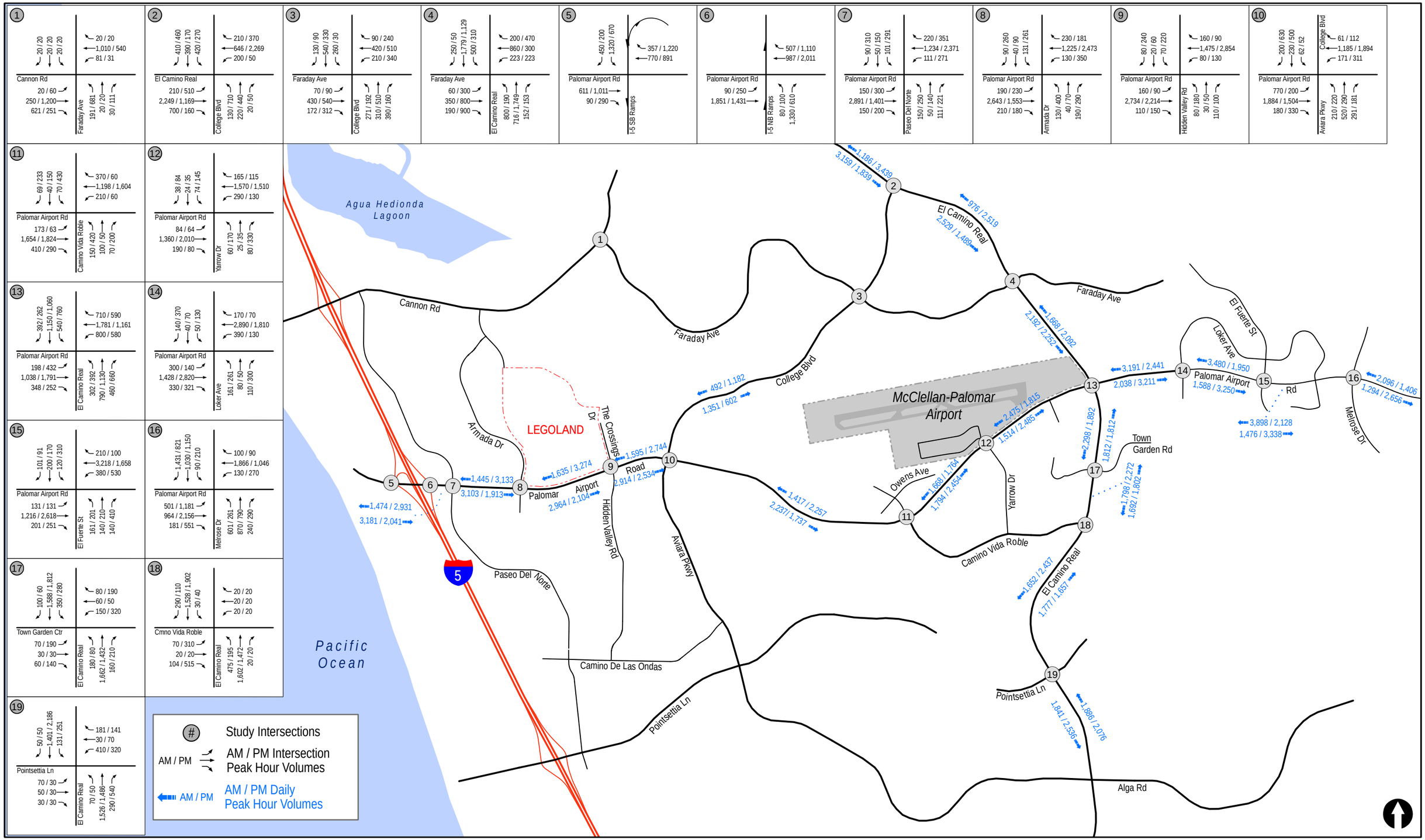

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Figure 11-2

Horizon Year + Long-Term Project (PAL 1) Traffic Volumes

McClellan-Palomar Airport Master Plan

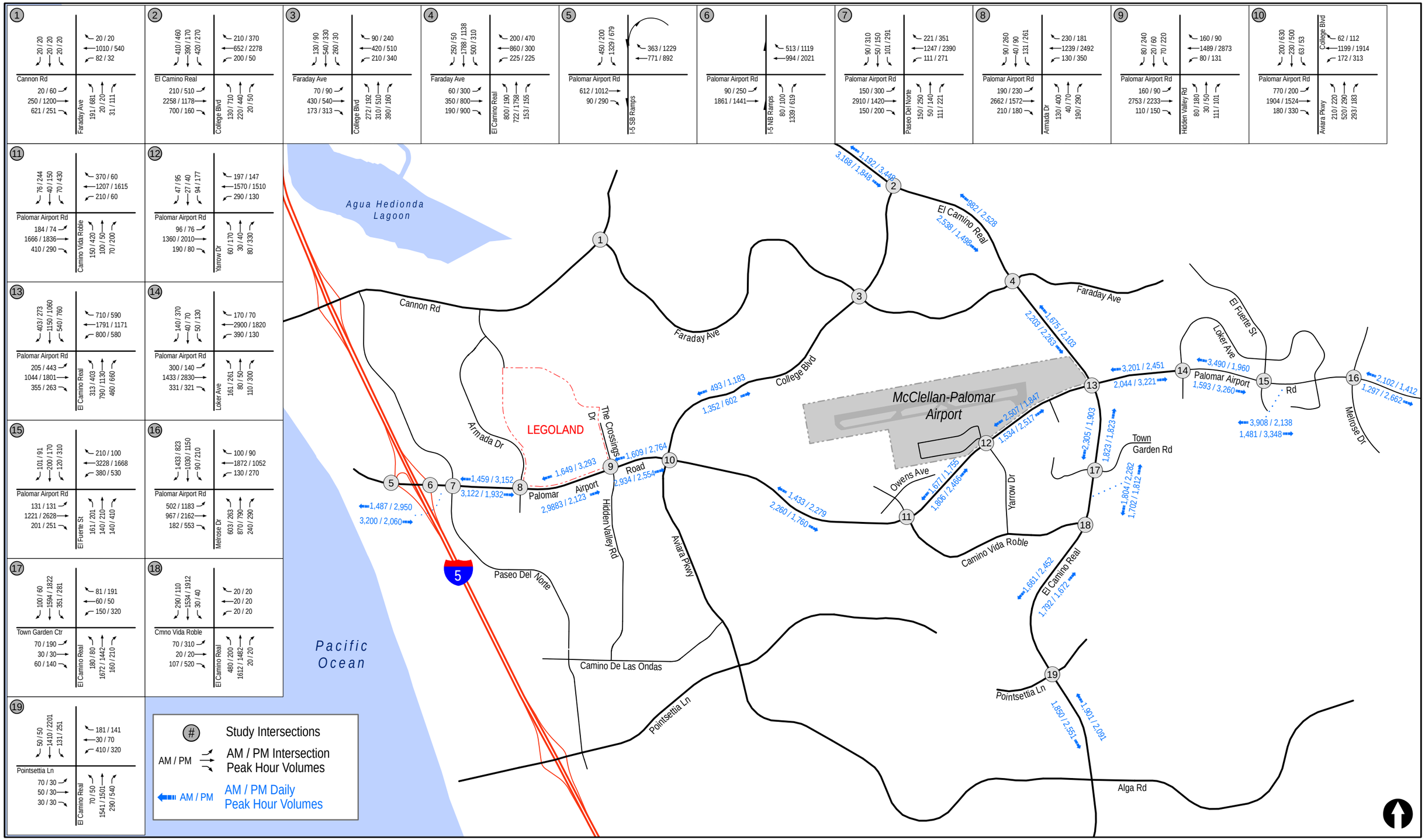

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Figure 11-3

Horizon Year + Long-Term Project (PAL 2) Traffic Volumes

McClellan-Palomar Airport Master Plan

12.0 PEDESTRIAN / BICYCLE / TRANSIT ANALYSIS

12.1 Overview

The City of Carlsbad requires multimodal level of service (MMLOS) evaluation for pedestrian, bicycle and transit/rideshare users of the public roadway system. The city organizes the street network by a system of "typologies," as defined by the City of Carlsbad Mobility Element. As seen in Table 3-1 of the City of Carlsbad Mobility Element, depending on the typology, different streets may require different MMLOS evaluations. For each roadway user set (pedestrian, bicycle, transit), general criteria groups have been identified. ***Table 12–1*** shows a summary of the criteria for each roadway user set based on the City of Carlsbad's MMLOS methodology.

TABLE 12–1
MULTIMODAL LEVEL OF SERVICE CRITERIA

Roadway Users		
Pedestrian	***Bicycle***	***Transit/Ridesharing***
Accessibility & Functionality	Street Characteristics	Access
Street Characteristics	Facility (each side of street)	Connectivity
Crossing Characteristics	Bikeway Design	Transit Priority
Other Elements	Connectivity/Contiguity	Service
–	Adjacent Vehicle Parking	Amenities
–	Other Elements.	Bicycle Accommodations
–	–	Ridesharing Potential

Source: Extracted from the City of Carlsbad MMLOS Scoring Criteria

Each roadway typography is evaluated for the particular set of roadway users based on sub-criteria, which is assigned "typology points". For example, within the *"Pedestrian-Accessibility and Functionality"* general criteria group, the following sub-criteria (with corresponding points) are considered:

- *Sidewalk meets ADA unobstructed width requirements (25 points)*
- *Ramps and landings within segment meet ADA requirements (20 points)*
- *Sidewalk segments meet ADA requirements (cross slopes and trip hazards) (15 points)*
- *Meets recommended sidewalk width for typology and adjacent land uses along frontage according to Mobility Element (10 points)*

The MMLOS analysis evaluates each of the sub-criteria, totals the points for the subject street typology, and compares the points to the City's MMLOS Point System and LOS Rating, shown in ***Table 12–2***. This table assigns a qualitative LOS to several ranges of points, similar to the application of LOS to ranges in delay for intersection operations.

TABLE 12–2
MMLOS POINT SYSTEM & LOS RATING

Point Score	*LOS*
90-100	A
80-90	B
70-80	C
60-70	D
50-60	E
0-50	F

Source: City of Carlsbad General Plan: Mobility Element

The City's Mobility Element calls for each street typology to achieve LOS D (equivalent to 60 points) or better operations for each general criteria group. It should be noted that scores in excess of 100 points can be achieved.

12.2 Project Roadway Evaluation

The City of Carlsbad identified the following roadways in the study area for MMLOS evaluation:

Palomar Airport Road is identified in the Mobility Element as an "Arterial Street". Based on the City's criteria for MMLOS evaluation, arterial streets are not subject to pedestrian or bicycle MMLOS standards. Therefore, only the following MMLOS "LOS D Standard" and corresponding analysis is required:

- Transit & Ridesharing MMLOS Criteria

Thus, Palomar Airport Road is to be evaluated between the northwest corner of the Project frontage intersection and the eastbound transit stop located 200 feet east of Yarrow Drive.

Yarrow Drive is identified in the Mobility Element as an "Industrial Street". Based on the City's criteria for MMLOS evaluation, industrial streets are not subject to pedestrian or bicycle MMLOS standards. Therefore, only the following MMLOS "LOS D Standard" and corresponding analysis is required:

- Transit & Ridesharing MMLOS Criteria

Thus, Yarrow Drive is to be evaluated between the northwest corner of the Project frontage intersection and the westbound transit stop located 200 feet south of Palomar Airport Drive.

12.3 MMLOS Results

12.3.1 *Palomar Airport Road – Transit and Ridesharing results*

Table 12–3 shows the Transit and Ridesharing MMLOS scoring criteria provided by the City of Carlsbad. As seen in *Table 12–3*, the existing transit amenities are identified based on street segment classification and proximate to the site as highlighted in yellow. When combined, these amenities

achieve 100 points' worth of criteria in five (5) of the six (6) broad Transit and Ridesharing categories. This is sufficient to meet the minimum standard of 60 points.

12.3.2 *Yarrow Drive – Transit and Ridesharing results*

Table 12–3 shows that the existing transit amenities proximate to the site achieve 95 points' worth of criteria in five (5) of the six (6) broad Transit and Ridesharing categories. This is sufficient to meet the minimum standard of 60 points.

12.4 Conclusion

As discussed above, the City of Carlsbad requires MMLOS evaluation for pedestrian, bicycle, and transit/rideshare users of the public roadway system. Based on the City of Carlsbad Mobility Element and in consultation with City staff, a MMLOS study area was identified for the Project. Based on the significance criteria, analysis of pedestrian and bicycle MMLOS was not required. Upon evaluating the Project under the transit and ridesharing criteria, no MMLOS street segment impacts are calculated since the study area street segments are all calculated to operate at acceptable LOS.

TABLE 12–3
TRANSIT AND RIDESHARING MMLOS CRITERIA

			"MMLOS = D" Standard Applies			"MMLOS = D" Standard Does Not Apply						
		Typology	Arterial Streets	Employment/ Transit Connector Street	Industrial Streets	Identity Streets	Village Streets	Arterial Connector Streets	Neighborhood Connector Street	Coastal Streets	School Streets	Local/ Neighborhood Street
Criteria		Points										
Existing Transit Route Located within 1/4 Mile Walk from Roadway Section												
Access	No greater than 1/4 mile walk to the nearest transit stop	40	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	No greater than 1/2 mile walk to the nearest transit stop	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	No greater than 1 mile bicycle ride to the nearest transit stop	10	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	ADA compliant connections to transit stops	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
Connectivity	Multiple transit routes stop on segment	10	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Route provides a direct link to a COASTER station or mobility hub	30	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Route provides for a single transfer to reach a COASTER station or mobility hub	15	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
Transit priority	Dedicated right of way	5	◊	◊	◊	*	*	*	*	*	*	*
	Transit priority during peak hours	5	*	*	*	*	*	*	*	*	*	*
Service	Headways of- 15 minutes between 6:30-8:30 am and 4-6 pm on weekdays	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Headways of 30 minutes between 6:30-8:30 am and 4-6 pm on weekdays	10	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Headways of 1 hour between 6:30-8:30 am and 4-6 pm on weekdays	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	No more than 2 hour headways between 6 am and 7 pm on weekdays	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	No more than 2 hour headways between 9 am and 5 pm on weekends	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
Amenities	Covered bus stops	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	*
	Bench	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Well-lit stop that provides a sense of security	20	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Trash cans	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	*
	Bus stop located within a block of commercial services	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
Bicycle Accommodations	Bike parking available at the bus stop	10	◊	◊	◊	◊	◊	◊	◊	◊	◊	*
	Buses that provide on-board bike racks	5	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
No Existing Transit Route Located within 1/4 Mile Walk from Roadway Section (or by approval of the City Traffic Engineer)												
Ridesharing Potential	Documented TDM measures are in place that promote ridesharing	60	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	On demand service is subsidized for trips to transit service	60	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
	Segment within FLEX service area	60	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊

Source: City of Carlsbad

13.0 VEHICLE MILES TRAVELED (VMT) ANALYSIS

In 2013, California Governor Jerry Brown signed into law Senate Bill 743 (SB 743), which created a new statewide approach to transportation and land use planning. A key aspect of this new approach looks at the relationship between new development and the number of "vehicle miles traveled" (VMT) generated by a development. Since SB 743 was passed, the state Office of Planning & Research (OPR) has been working to prepare draft revisions to the State's CEQA Guidelines. At the time of this writing, evaluation of transportation impacts using the VMT metric is not required by the State or County CEQA Guidelines, and LOS is the official metric for identifying impacts and mitigation. However, for informational purposes only, this section presents a voluntary evaluation of the potential VMT that could be generated by the Project.

In an effort to provide an evaluation of VMT, an analysis was conducted to document the Project's potential VMT and Average Vehicle Trip Length (ATL) per assigned vehicle trip. SANDAG's April 2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* reports an ATL of 12.5 miles for any airport and states "trip lengths are average weighted for all trips to and from the land use site." The SANDAG trip length is for any given airport, which could range from large commercial hub (e.g., international) airports to nonprimary reliever or general aviation airports. Based on the fact that the Project will not provide as many services as a large commercial hub airport but is still in relative proximity to other airports, and the fact that McClellan-Palomar Airport will generate most of its trips from cities and communities located in northern San Diego County, an ATL of 6.25 miles was estimated for the Project. In addition, the availability of other general aviation airports such as Montgomery-Gibbs and Gillespie Field will shorten the distance patrons need to drive to the McClellan-Palomar Airport.

Table 13–1 shows the VMT calculations for both Project alternatives (PAL1 and PAL2). Using the estimated ATL, the total daily VMT generated by the Project was calculated by multiplying the Project ATL by the Project trip generation.

TABLE 13–1
PROJECT-GENERATED VEHICLE MILES TRAVELED

Project Scenario	Average Trip Length (miles)**	Average Daily Vehicle Trips	Daily Vehicle Miles Traveled (miles)*
Near-Term Project (PAL1)	6.25	449	2,807
Near-Term Project (PAL2)	6.25	844	5,275
Long-Term Project (PAL1)	6.25	2,230	13,938
Long-Term Project (PAL2)	6.25	4,206	26,288

*Rounded up to whole number.

** Trip length is the average of all trips generated by the airport, including employees, patrons, deliveries, etc.

14.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

Per City of Carlsbad significance thresholds and the analysis methodology presented in this report, no significant direct impacts are calculated. Two (2) significant cumulative impacts are calculated. The following section lists the significant impacts and provides recommendations for mitigation measures to address operating deficiencies. Also included is the results of a phasing analysis to determine the amount of enplanements that could occur before the impacts would occur.

14.1 Significance of Impacts

Based on the applied significance criteria, the following significant cumulative impacts were calculated at the following locations:

Intersections

a. Palomar Airport Road / Camino Vida Roble (cumulative impact)
b. Palomar Airport Road / El Camino Real (cumulative impact)

Segments

Based on the applied significance criteria, the Project was calculated to have no significant impacts at any of the study area street segments in the near-term or long-term conditions.

14.2 Phasing Analysis

An analysis was conducted to determine the amount of traffic which can be added to each intersection before the significant impact would be triggered using City criteria. Those volumes were then correlated to the amount of enplanements that would produce that volume. Based on the City of Carlsbad's significance criteria, the Project would have a significant impact once the Project increases the intersection delay by more than 2.0 seconds.

Using the Project trip generation and trip distribution, the amount of peak hour traffic that would cause a 2.0 second delay increase was calculated. This amount of peak hour traffic was then correlated to the daily and peak hour enplanements using the trip generation factors. ***Appendix G*** contains the calculation sheets. The significant impact at the Palomar Airport Road / Camino Vida Roble intersection would occur at 1,260 daily enplanements and the impact at the Palomar Airport Road / El Camino Real intersection would occur at 670 daily enplanements.

14.3 Mitigation

The following mitigation measures are recommended to mitigate the significant impacts. Both mitigation measures recommend the payment of a fair share amount. Using the standard fair share formula of [Project traffic/(Long-Term – Existing traffic)], fair share percentages were calculated. ***Appendix H*** shows the fair share calculations:

Per the City of Carlsbad's Mobility Element, Palomar Airport Road from Interstate-5 to College Boulevard and from El Camino Real to Melrose Drive are exempt from City LOS standards. Therefore, the City plans to implement transportation demand management, transportation system management, and livable streets techniques to better manage the transportation system as a whole.

Transportation System Management (TSM) strategies can include implementation of advanced signal timing procedures that use real-time traffic data to adjust signals to events that cannot be anticipated by traditional time-of-day plans, such as accidents and road construction. TSM strategies include enhanced multimodal traffic signal operations, enhanced traffic incident management, and transit signal priority.

It is recommended that the Project contribute a fair share towards the implementation of TSM strategies along Palomar Airport Road. The following are the specific mitigation measures.

a. Palomar Airport Road / Camino Vida Roble

Paying a fair share (10.7%) towards the installation of TSM strategies that improve signal operations along Palomar Airport Road that would include this intersection would mitigate the significant cumulative impact.

b. Palomar Airport Road / El Camino Real

Paying a fair share (7.5%) towards the installation of TSM strategies that improve signal operations along Palomar Airport Road that would include this intersection would mitigate the significant cumulative impact.

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TECHNICAL APPENDICES

MCCLELLAN-PALOMAR AIRPORT MASTER PLAN UPDATE

County of San Diego, California
December 7, 2017

LLG Ref. 3-17-2772

APPENDICES

APPENDIX

A. Intersection and Segment Manual Count Sheets

B. ICU and HCM Intersection Analysis Methodologies

C. Existing Intersection Analysis Calculation Worksheets

D. Existing + Project Intersection Analysis Calculation Worksheets

E. Near-Term Intersection Analysis Calculation Worksheets

F. Long-Term Intersection Analysis Calculation Worksheets

G. Mitigation Measure Phasing Information

H. Fair Share Calculations

APPENDIX A

INTERSECTION & SEGMENT MANUAL COUNT SHEETS

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 39

Intersection Location: Cannon Rd. & Faraday Ave.

Contents:

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Cannon Road at Faraday Avenue

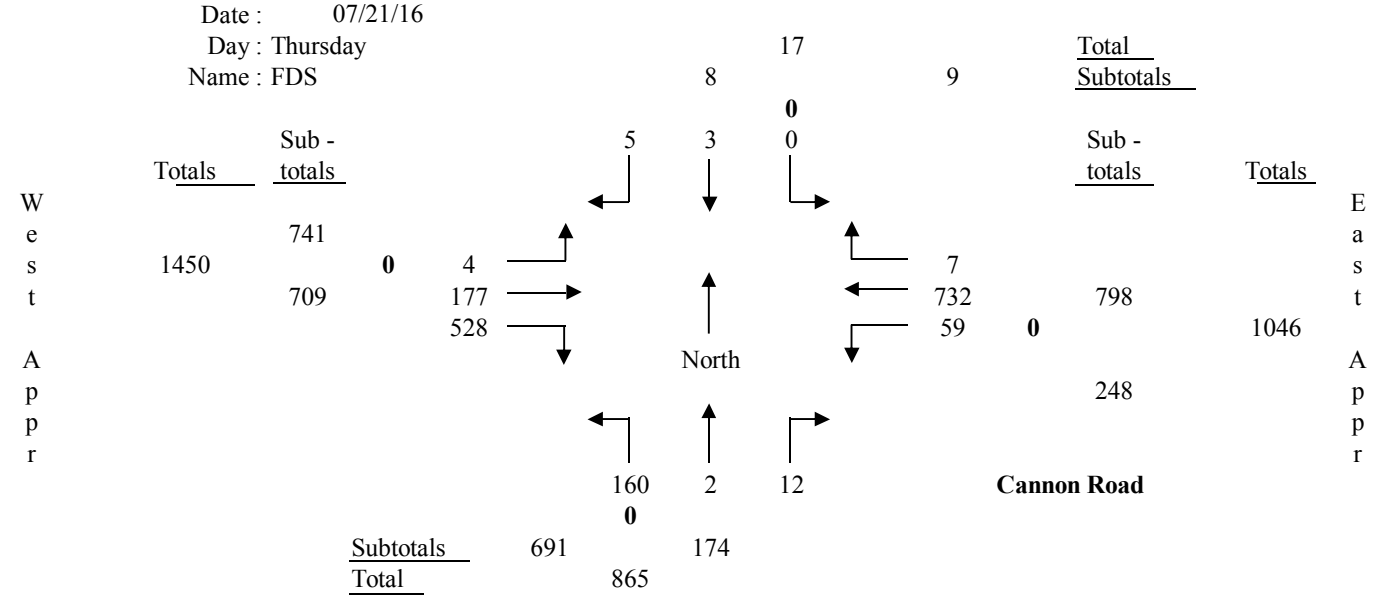
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	0	0	1	1	1	1	1	2	0
Capacity			3600	0	0	0	0	1800	1800	2000	1800	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			160	2	12	0	3	5	4	177	528	59	732	7
Adjusted Hourly Volume			174	0	0	0	0	8	4	177	528	59	739	0
Utilization Factor			0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.29	0.03	0.18	0.00
Critical Factors			0.05					0.00			0.29	0.03		

ICU Ratio = 0.47 LOS = A

Turning Movements at Intersection of : **Cannon Road and Faraday Avenue**

Time : 7:30 AM
to 8:30 AM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Cannon Road at Faraday Avenue

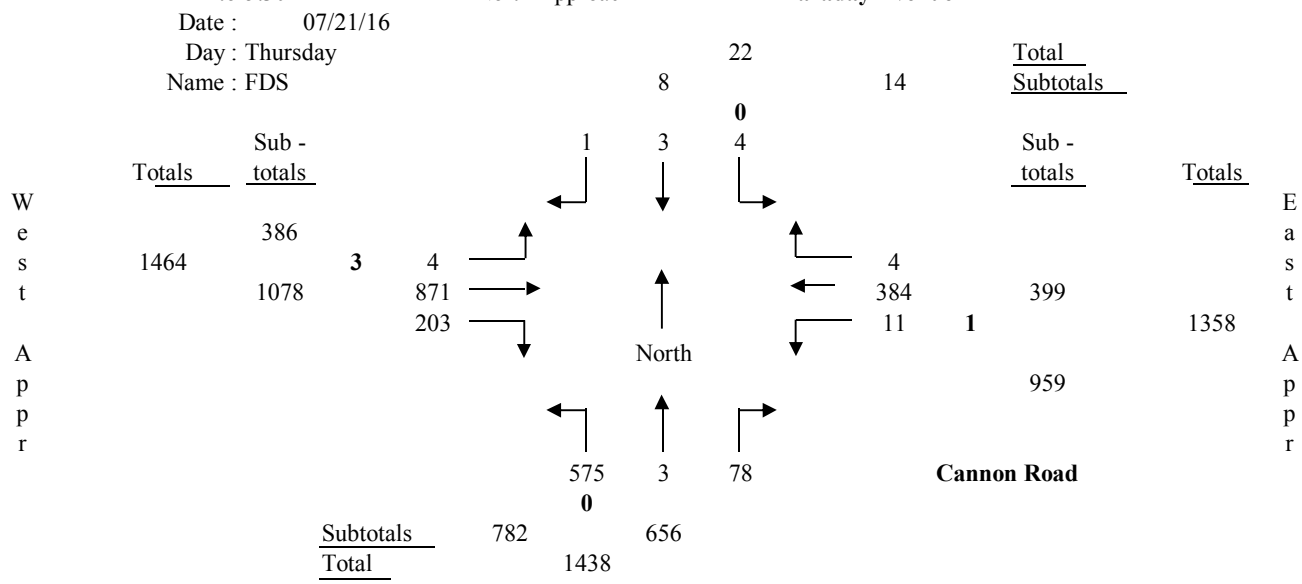
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1	1	1	1			1		
	2	1	1	1					1			1	
	3								1	1		1	1
	4												
	5												
	6												
	Outside 7												
	Free-flow												
Lane Settings		2	0	0	1	0	0	1	2	0	1	2	0
Capacity		3600	0	0	1800	0	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				Y									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		575	3	78	4	3	1	4	871	203	11	384	4
Adjusted Hourly Volume		656	0	0	8	3	0	4	871	203	11	388	0
Utilization Factor		0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.10	0.00
Critical Factors		0.18			0.00				0.22		0.01		

ICU Ratio = 0.51 LOS = A

Turning Movements at Intersection of : **Cannon Road and Faraday Avenue**

Time : 4:30 PM
to 5:30 PM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

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N-S STREET:	Faraday Ave.	DATE:	07/21/2016	LOCATION:	Carlsbad
E-W STREET:	Cannon Rd.	DAY:	THURSDAY	PROJECT#	16-1256-039
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1.3	0.3	0.3	1	2	0	1	2	0	
6:30 AM	0	0	0	39	0	6	0	168	1	0	30	37	281
6:45 AM	1	0	0	26	0	0	1	231	2	0	29	55	345
7:00 AM	0	0	1	47	2	0	8	161	2	0	34	61	316
7:15 AM	0	0	2	31	0	3	9	216	0	1	33	69	364
7:30 AM	0	1	2	46	1	5	13	202	0	1	43	112	426
7:45 AM	0	0	2	34	1	0	18	221	3	0	44	142	465
8:00 AM	0	1	1	42	0	4	11	150	2	0	48	143	402
8:15 AM	0	1	0	38	0	3	17	159	2	3	42	131	396
8:30 AM	2	1	2	32	2	4	8	133	5	2	62	118	371
8:45 AM	1	1	1	39	2	1	6	152	3	1	55	107	369
9:00 AM	0	1	0	41	2	0	9	130	1	3	62	83	332
9:15 AM	1	1	3	43	1	4	1	104	1	0	70	64	293
Volumes	5	7	14	458	11	30	101	2027	22	11	552	1122	4360
Approach %	19.23	26.92	53.85	91.78	2.20	6.01	4.70	94.28	1.02	0.65	32.76	66.59	
App/Depart	26	/	1230	499	/	44	2150	/	2499	1685	/	587	
Peak Volumes	0	3	5	160	2	12	59	732	7	4	177	528	1689
Approach %	0.00	37.50	62.50	91.95	1.15	6.90	7.39	91.73	0.88	0.56	24.96	74.47	
Pk Hr FACTOR:	0.67			0.84			0.82			0.93			0.9081
AM Pk Hr at:										730			

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	0	0	1	82	0	5	1	86	2	0	208	42	427
3:45 PM	1	0	1	58	0	1	2	97	0	2	164	33	359
4:00 PM	0	0	2	102	0	8	4	101	0	2	183	42	444
4:15 PM	1	0	0	91	0	10	6	105	0	1	186	43	443
4:30 PM	1	0	1	131	0	10	4	101	0	2	203	54	507
4:45 PM	1	2	0	116	1	19	2	81	0	0	200	53	475
5:00 PM	1	0	0	172	0	23	6	90	1	1	228	42	564
5:15 PM	1	0	0	159	1	12	1	113	1	1	219	66	574
5:30 PM	1	1	1	128	1	24	2	100	2	0	224	42	526
5:45 PM	2	1	0	105	1	10	3	87	1	1	210	28	449
6:00 PM	0	0	0	102	0	7	4	79	0	0	181	31	404
6:15 PM	1	0	0	81	0	7	3	76	1	0	166	25	360
Volumes	10	4	6	1327	4	136	38	1116	8	10	2372	501	5532
Approach %	50.00	20.00	30.00	90.46	0.27	9.27	3.27	96.04	0.69	0.35	82.28	17.38	
App/Depart	20	/	543	1467	/	22	1162	/	2449	2883	/	2518	
Peak Volumes	4	3	1	575	3	78	11	384	4	2	871	203	2139
Approach %	50.00	37.50	12.50	87.65	0.46	11.89	2.76	96.24	1.00	0.19	80.95	18.87	
Pk Hr FACTOR:	0.67			0.84			0.87			0.94			0.9316
PM Pk Hr at:										445			

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 6

Intersection Location: El Camino Real & College Blvd.

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College Boulevard at El Camino Real

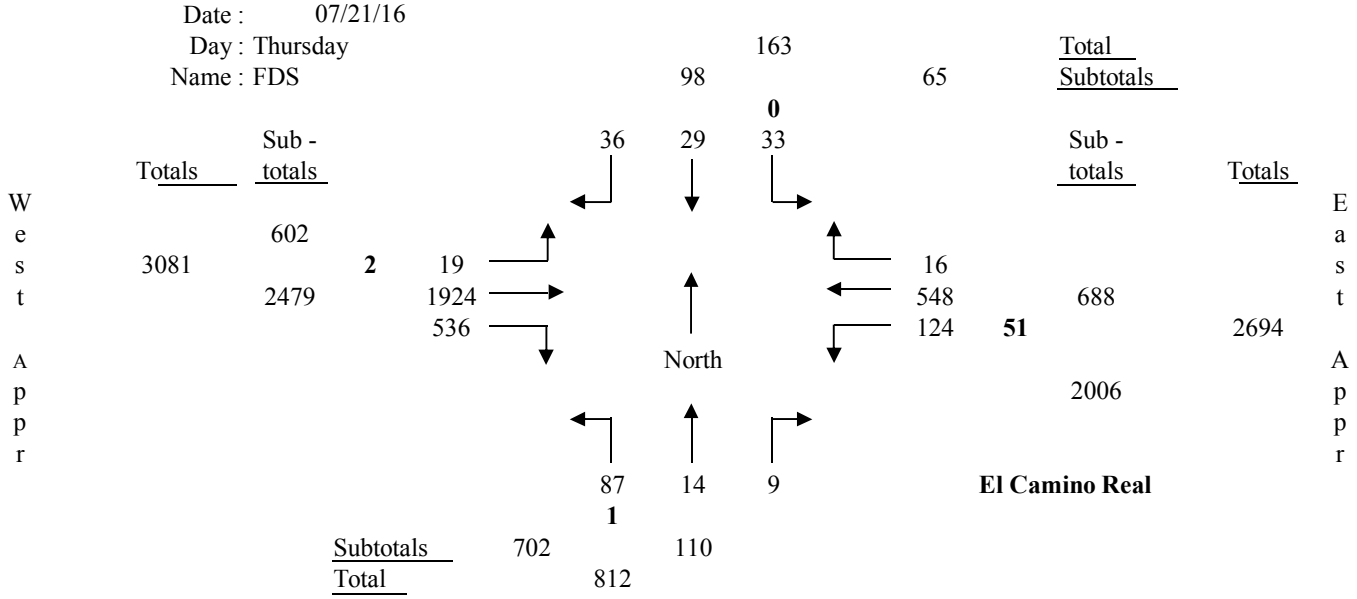
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			87	14	9	33	29	36	19	1924	536	124	548	16
Adjusted Hourly Volume			87	23	0	33	29	0	19	1924	536	124	548	16
Utilization Factor			0.02	0.01	0.00	0.01	0.01	0.00	0.01	0.32	0.30	0.07	0.09	0.01
Critical Factors			0.02				0.01			0.32		0.07		

ICU Ratio = 0.52 LOS = A

Turning Movements at Intersection of : **College Boulevard and El Camino Real**

Time : 7:45 AM
to 8:45 AM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

College Boulevard at El Camino Real

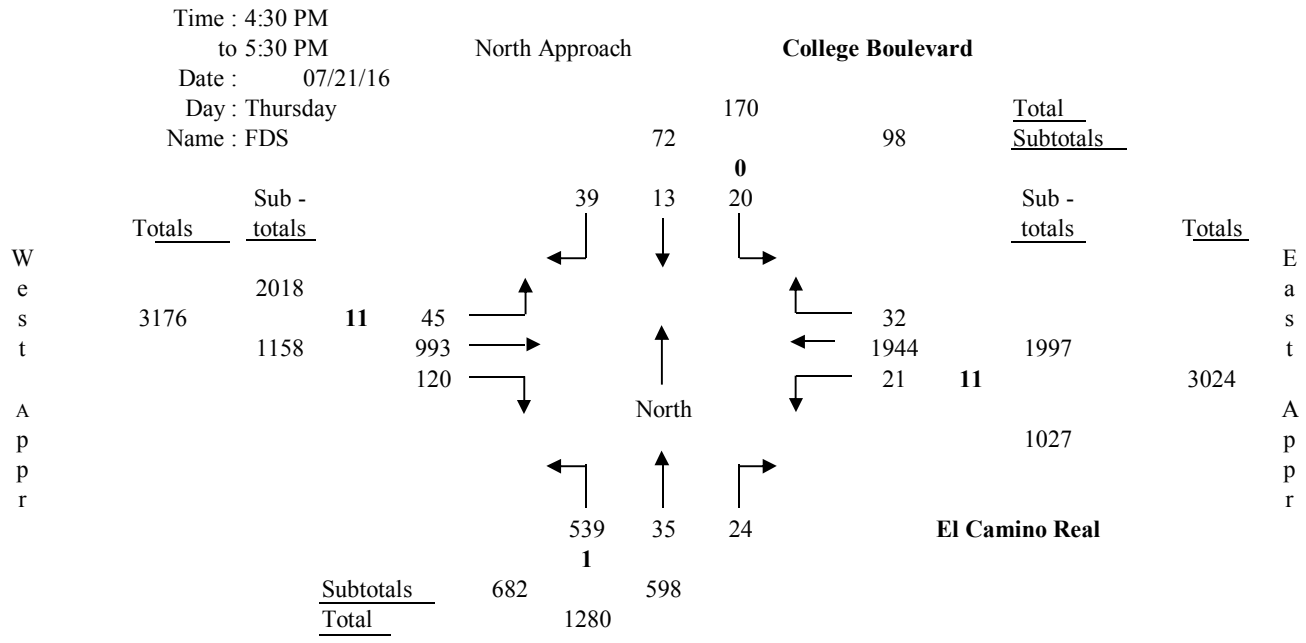
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			539	35	24	20	13	39	45	993	120	21	1944	32
Adjusted Hourly Volume			539	59	0	20	13	0	45	993	120	21	1944	32
Utilization Factor			0.15	0.01	0.00	0.01	0.01	0.00	0.03	0.17	0.07	0.01	0.32	0.02
Critical Factors			0.15				0.01		0.03				0.32	

ICU Ratio = 0.61 LOS = B

Turning Movements at Intersection of : **College Boulevard and El Camino Real**

Time : 4:30 PM
to 5:30 PM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

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N-S STREET:	College Blvd.	DATE:	07/21/2016	LOCATION:	Carlsbad
E-W STREET:	El Camino Real	DAY:	THURSDAY	PROJECT#	16-1256-006
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	1	3	1	1	3	1	
6:30 AM	7	2	1	3	5	7	2	274	66	5	51	3	426
6:45 AM	8	1	0	9	5	3	4	372	107	13	79	2	603
7:00 AM	15	1	3	4	3	4	3	379	85	14	85	3	599
7:15 AM	15	1	1	3	6	9	6	474	96	10	97	3	721
7:30 AM	14	3	3	15	6	7	4	484	120	27	111	6	800
7:45 AM	15	3	1	8	9	6	2	532	163	31	138	8	916
8:00 AM	21	3	4	8	9	11	5	458	118	30	121	2	790
8:15 AM	21	3	0	9	4	10	1	471	118	27	134	2	800
8:30 AM	30	5	4	8	7	9	11	463	137	36	155	4	869
8:45 AM	28	9	1	8	7	11	5	461	105	26	180	5	846
9:00 AM	24	6	1	6	6	12	10	358	78	27	157	8	693
9:15 AM	13	5	5	9	7	8	8	271	60	27	148	18	579
Volumes	211	42	24	90	74	97	61	4997	1253	273	1456	64	8642
Approach %	76.17	15.16	8.66	34.48	28.35	37.16	0.97	79.18	19.85	15.23	81.20	3.57	
App/Depart	277	/	167	261	/	1600	6311	/	5111	1793	/	1764	
Peak Volumes	87	14	9	33	29	36	19	1924	536	124	548	16	3375
Approach %	79.09	12.73	8.18	33.67	29.59	36.73	0.77	77.61	21.62	18.02	79.65	2.33	
Pk Hr FACTOR:	0.71			0.88			0.89			0.88			0.9211
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	114	5	6	6	2	5	3	277	39	13	395	3	868
3:45 PM	85	8	1	5	3	10	8	270	41	8	424	4	867
4:00 PM	116	4	5	9	6	8	8	269	22	4	423	9	883
4:15 PM	95	6	1	9	3	9	11	265	28	4	419	5	855
4:30 PM	131	5	4	5	4	7	7	258	28	5	477	9	940
4:45 PM	102	6	5	3	1	4	5	259	44	5	473	9	916
5:00 PM	164	13	10	8	4	8	13	239	26	8	499	5	997
5:15 PM	142	11	5	4	4	20	9	237	22	3	495	9	961
5:30 PM	92	6	7	9	7	9	5	241	29	2	432	10	849
5:45 PM	104	10	1	7	2	10	6	212	24	2	412	6	796
6:00 PM	67	18	2	3	4	5	9	175	15	2	341	5	646
6:15 PM	78	6	1	5	6	9	9	182	21	4	317	12	650
Volumes	1290	98	48	73	46	104	93	2884	339	60	5107	86	10228
Approach %	89.83	6.82	3.34	32.74	20.63	46.64	2.80	86.97	10.22	1.14	97.22	1.64	
App/Depart	1436	/	277	223	/	445	3316	/	3005	5253	/	6501	
Peak Volumes	539	35	24	20	13	39	34	993	120	21	1944	32	3814
Approach %	90.13	5.85	4.01	27.78	18.06	54.17	2.96	86.57	10.46	1.05	97.35	1.60	
Pk Hr FACTOR:	0.80			0.64			0.93			0.98			0.9564
PM Pk Hr at:	430												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 41

Intersection Location: College Blvd. & Faraday Ave.

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Michael Baker
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College Boulevard at Faraday Avenue

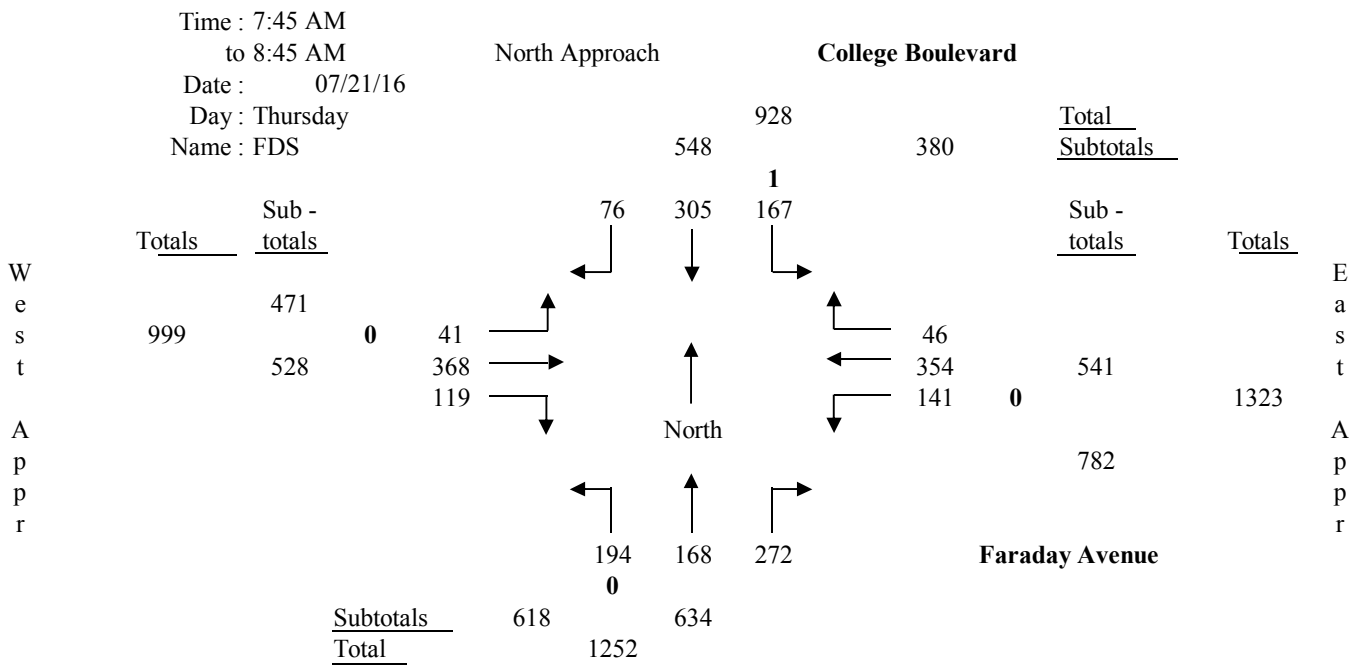
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	1	2	0	1	2	0
Capacity			3600	2000	1800	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			194	168	272	167	305	76	41	368	119	141	354	46
Adjusted Hourly Volume			194	440	272	167	381	0	41	368	119	141	400	0
Utilization Factor			0.05	0.22	0.15	0.05	0.10	0.00	0.02	0.09	0.00	0.08	0.10	0.00
Critical Factors				0.22		0.05				0.09		0.08		

ICU Ratio = 0.54 LOS = A

Turning Movements at Intersection of : **College Boulevard and Faraday Avenue**

Time : 7:45 AM
to 8:45 AM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

College Boulevard at Faraday Avenue

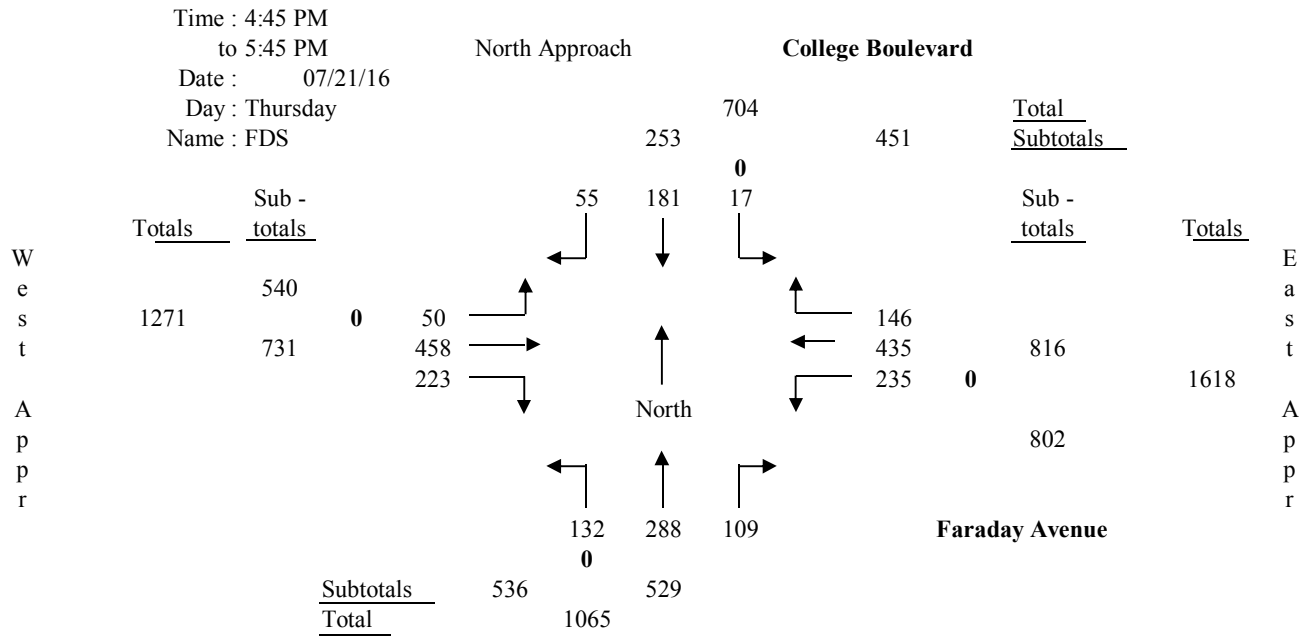
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	2	0	2	2	0	1	2	0	1	2	0
Capacity			3600	4000	0	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			132	288	109	17	181	55	50	458	223	235	435	146
Adjusted Hourly Volume			132	397	0	17	236	0	50	458	223	235	581	0
Utilization Factor			0.04	0.10	0.00	0.00	0.06	0.00	0.03	0.11	0.00	0.13	0.15	0.00
Critical Factors				0.10		0.00				0.11		0.13		

ICU Ratio = 0.44 LOS = A

Turning Movements at Intersection of : **College Boulevard and Faraday Avenue**

Time : 4:45 PM
to 5:45 PM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: College Blvd. DATE: 07/21/2016 LOCATION: Carlsbad

E-W STREET: Faraday Ave. DAY: THURSDAY PROJECT# 16-1256-041

CONTROL: Signal

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	1	2	0	1	2	0	
6:30 AM	18	16	21	14	33	10	4	30	12	23	41	4	226
6:45 AM	24	13	26	38	49	14	3	34	9	31	56	14	311
7:00 AM	24	15	33	23	52	17	4	50	11	20	69	8	326
7:15 AM	29	20	42	31	59	14	2	51	25	17	62	11	363
7:30 AM	41	34	55	33	69	13	5	76	18	24	72	11	451
7:45 AM	50	33	87	53	101	15	10	98	33	31	85	14	610
8:00 AM	53	43	63	45	58	21	7	99	26	46	94	13	568
8:15 AM	46	38	65	29	62	20	4	83	35	39	69	11	501
8:30 AM	45	54	57	40	84	20	20	88	25	25	106	8	572
8:45 AM	51	38	53	24	75	17	11	86	15	34	104	4	512
9:00 AM	48	40	64	26	45	13	13	73	14	24	101	7	468
9:15 AM	44	28	51	25	42	12	3	64	16	37	96	11	429
Volumes	473	372	617	381	729	186	86	832	239	351	955	116	5337
Approach %	32.35	25.44	42.20	29.40	56.25	14.35	7.43	71.91	20.66	24.68	67.16	8.16	
App/Depart	1462	/	574	1296	/	1319	1157	/	1830	1422	/	1614	
Peak Volumes	194	168	272	167	305	76	41	368	119	141	354	46	2251
Approach %	30.60	26.50	42.90	30.47	55.66	13.87	7.77	69.70	22.54	26.06	65.43	8.50	
Pk Hr FACTOR:	0.93			0.81			0.94			0.88			0.9225
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	27	69	15	6	43	9	12	65	31	29	65	39	410
3:45 PM	27	51	25	7	39	9	9	65	32	25	59	23	371
4:00 PM	19	85	16	0	31	11	11	66	37	52	58	34	420
4:15 PM	22	61	20	3	34	8	9	65	34	29	63	18	366
4:30 PM	28	76	24	6	35	12	5	101	34	49	100	27	497
4:45 PM	37	64	22	6	43	11	11	112	47	54	94	21	522
5:00 PM	30	87	26	5	51	15	14	134	63	82	149	70	726
5:15 PM	34	89	30	2	40	14	13	115	60	53	98	27	575
5:30 PM	31	48	31	4	47	15	12	97	53	46	94	28	506
5:45 PM	22	62	27	5	35	8	8	94	39	32	83	25	440
6:00 PM	19	50	20	3	34	6	16	76	25	37	47	14	347
6:15 PM	13	61	14	1	34	10	10	42	23	40	47	12	307
Volumes	309	803	270	48	466	128	130	1032	478	528	957	338	5487
Approach %	22.36	58.10	19.54	7.48	72.59	19.94	7.93	62.93	29.15	28.96	52.50	18.54	
App/Depart	1382	/	1271	642	/	1472	1640	/	1350	1823	/	1394	
Peak Volumes	132	288	109	17	181	55	50	458	223	235	435	146	2329
Approach %	24.95	54.44	20.60	6.72	71.54	21.74	6.84	62.65	30.51	28.80	53.31	17.89	
Pk Hr FACTOR:	0.86			0.89			0.87			0.68			0.802
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 7

Intersection Location: El Camino Real & Faraday Ave.

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El Camino Real at Faraday Avenue

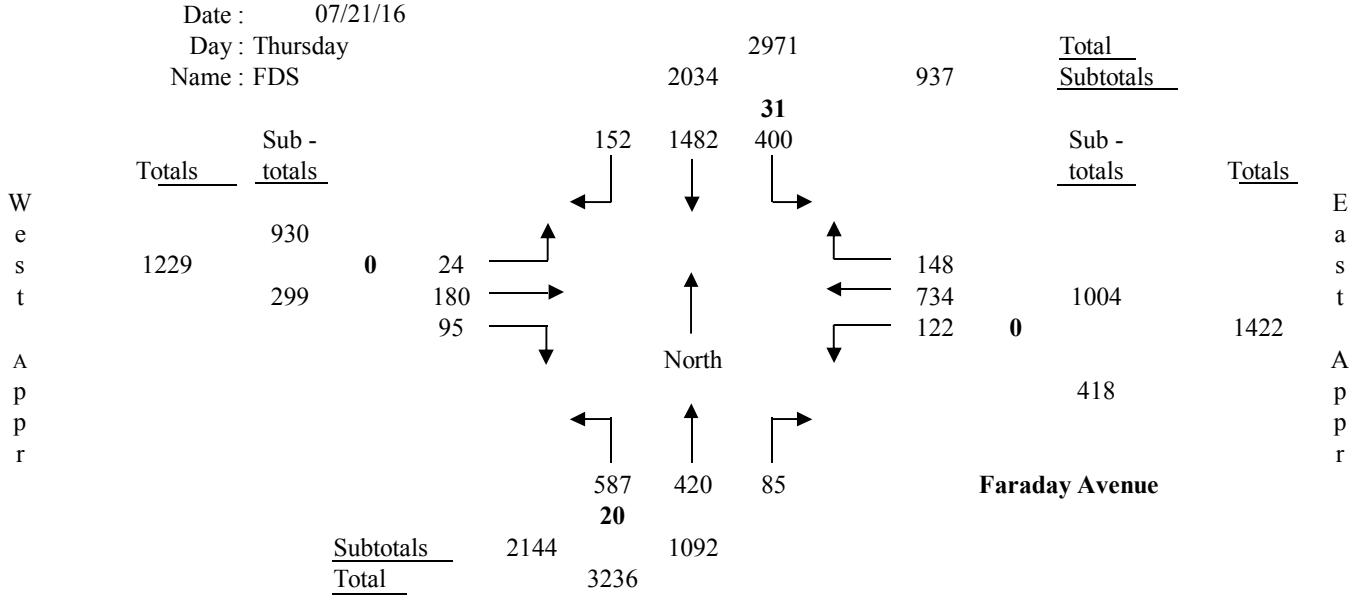
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	2	1	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	4000	1800	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			587	420	85	400	1482	152	24	180	95	122	734	148
Adjusted Hourly Volume			587	505	0	400	1482	152	24	180	95	122	734	148
Utilization Factor			0.16	0.08	0.00	0.11	0.25	0.08	0.01	0.05	0.05	0.07	0.18	0.08
Critical Factors			0.16				0.25		0.01				0.18	

ICU Ratio = 0.70 LOS = B

Turning Movements at Intersection of : **El Camino Real and Faraday Avenue**

Time : 7:30 AM
to 8:30 AM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

El Camino Real at Faraday Avenue

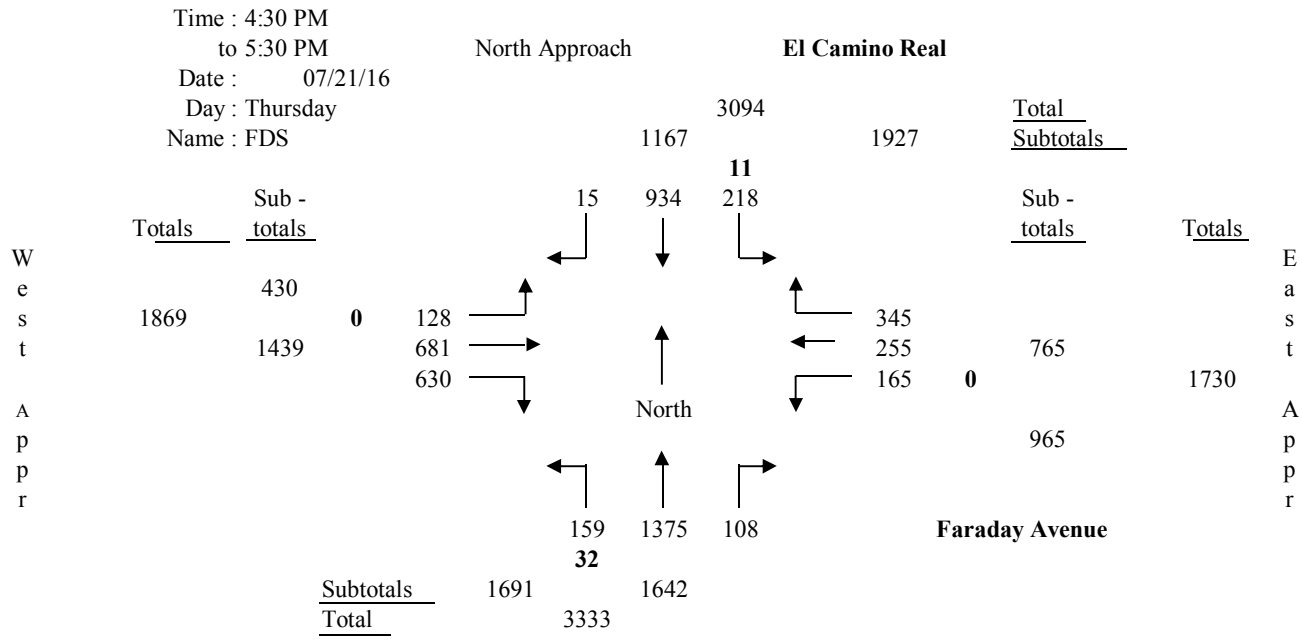
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	1	2	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	2000	3600	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			159	1375	108	218	934	15	128	681	630	165	255	345
Adjusted Hourly Volume			159	1483	0	218	934	15	128	341	971	165	255	345
Utilization Factor			0.04	0.25	0.00	0.06	0.16	0.01	0.07	0.17	0.27	0.09	0.06	0.19
Critical Factors				0.25		0.06					0.27	0.09		

ICU Ratio = 0.77 LOS = C

Turning Movements at Intersection of : **El Camino Real and Faraday Avenue**

Time : 4:30 PM
to 5:30 PM
Date : 07/21/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	El Camino Real	DATE:	07/21/2016	LOCATION:	Carlsbad
E-W STREET:	Faraday Ave.	DAY:	THURSDAY	PROJECT#	16-1256-007
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	2	3	1	1	2	1	1	2	1	
6:30 AM	60	45	20	64	161	13	5	17	7	21	99	12	524
6:45 AM	94	77	27	104	277	25	1	26	16	16	124	23	810
7:00 AM	99	81	14	89	249	39	0	30	16	16	165	14	812
7:15 AM	121	83	15	95	319	50	2	32	12	22	146	24	921
7:30 AM	112	99	20	88	381	36	2	44	18	23	189	29	1041
7:45 AM	155	120	28	129	379	39	6	46	23	28	200	48	1201
8:00 AM	162	87	15	91	348	46	12	51	28	37	192	36	1105
8:15 AM	158	114	22	92	374	31	4	39	26	34	153	35	1082
8:30 AM	133	132	18	61	322	38	7	41	27	22	156	38	995
8:45 AM	126	131	26	102	426	35	12	40	33	44	147	58	1180
9:00 AM	130	139	20	51	299	19	4	42	33	33	177	39	986
9:15 AM	127	136	30	53	244	24	6	24	39	35	111	42	871
Volumes	1477	1244	255	1019	3779	395	61	432	278	331	1859	398	11528
Approach %	49.63	41.80	8.57	19.62	72.77	7.61	7.91	56.03	36.06	12.79	71.83	15.38	
App/Depart	2976	/	1703	5193	/	4388	771	/	1706	2588	/	3731	
Peak Volumes	587	420	85	400	1482	152	24	180	95	122	734	148	4429
Approach %	53.75	38.46	7.78	19.67	72.86	7.47	8.03	60.20	31.77	12.15	73.11	14.74	
Pk Hr FACTOR:	0.90			0.93			0.82			0.91			0.9219
AM Pk Hr at:	730												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	41	309	22	44	236	7	20	108	113	46	48	62	1056
3:45 PM	45	285	19	43	266	4	16	103	90	41	45	68	1025
4:00 PM	46	280	24	54	263	5	30	133	137	41	30	80	1123
4:15 PM	33	294	15	55	233	1	15	119	94	34	51	74	1018
4:30 PM	47	333	12	62	234	3	39	130	157	40	58	91	1206
4:45 PM	39	321	29	61	217	4	38	146	123	33	72	88	1171
5:00 PM	33	340	30	45	260	5	26	201	176	46	71	103	1336
5:15 PM	40	381	37	50	223	3	25	204	174	46	54	63	1300
5:30 PM	38	321	27	61	217	7	33	180	140	49	49	66	1188
5:45 PM	42	295	19	49	190	1	22	142	116	30	36	64	1006
6:00 PM	27	249	14	39	166	3	20	91	116	27	35	43	830
6:15 PM	22	275	11	20	186	3	14	75	91	23	31	41	792
Volumes	453	3683	259	583	2691	46	298	1632	1527	456	580	843	13051
Approach %	10.31	83.80	5.89	17.56	81.05	1.39	8.62	47.21	44.17	24.27	30.87	44.86	
App/Depart	4395	/	4824	3320	/	4674	3457	/	2474	1879	/	1079	
Peak Volumes	159	1375	108	218	934	15	128	681	630	165	255	345	5013
Approach %	9.68	83.74	6.58	18.68	80.03	1.29	8.90	47.32	43.78	21.57	33.33	45.10	
Pk Hr FACTOR:	0.90			0.94			0.89			0.87			0.9381
PM Pk Hr at:	430												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 48

Intersection Location: I-5 SB Ramps & Palomar Airport Rd.

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I-5 Southbound Ramps at Palomar Airport Road

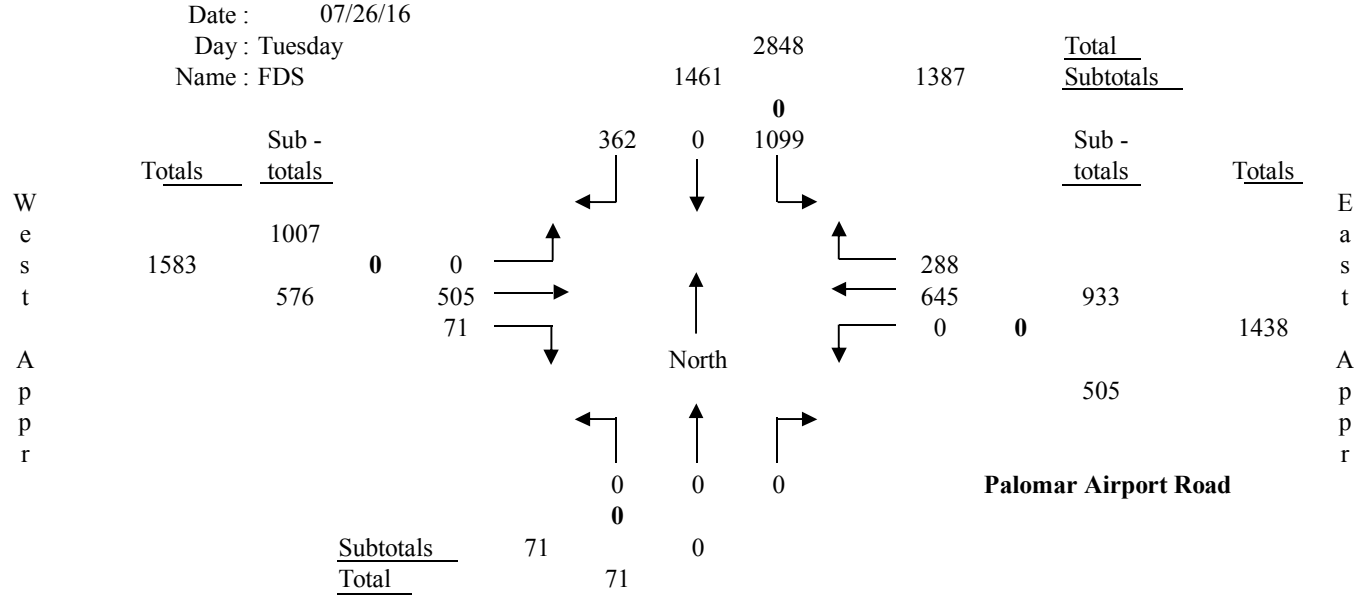
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	1099	0	362	0	505	71	0	645	288
Adjusted Hourly Volume			0	0	0	1099	0	362	0	576	0	0	645	0
Utilization Factor			0.00	0.00	0.00	0.31	0.00	0.20	0.00	0.10	0.00	0.00	0.16	0.00
Critical Factors				0.00	0.00	0.31			0.00				0.16	

ICU Ratio = 0.57 LOS = A

Turning Movements at Intersection of : **I-5 Southbound Ramps and Palomar Airport Road**

Time : 7:30 AM
to 8:30 AM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

I-5 Southbound Ramps at Palomar Airport Road

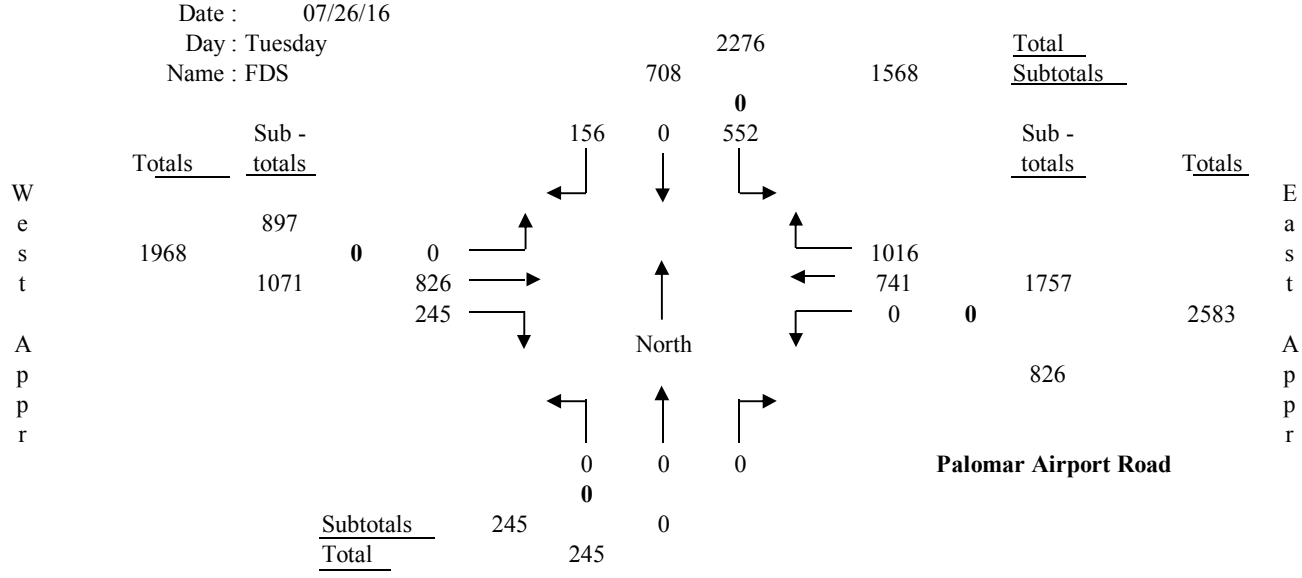
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1				1				1			1	
	2				1				1			1	
	3						1		1	1			
	4												
	5												
	6												
	Outside 7												
	Free-flow												1
Lane Settings		0	0	0	2	0	1	0	3	0	0	2	1
Capacity		0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		0	0	0	552	0	156	0	826	245	0	741	1016
Adjusted Hourly Volume		0	0	0	552	0	156	0	1071	0	0	741	0
Utilization Factor		0.00	0.00	0.00	0.15	0.00	0.09	0.00	0.18	0.00	0.00	0.19	0.00
Critical Factors			0.00	0.00	0.15			0.00				0.19	

ICU Ratio = 0.44 LOS = A

Turning Movements at Intersection of : **I-5 Southbound Ramps and Palomar Airport Road**

Time : 4:45 PM
to 5:45 PM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	I-5 SB Ramps	DATE:	07/26/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	TUESDAY	PROJECT#	16-1256-048
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	2	0	1	0	3	1	0	2	1	
6:30 AM	0	0	0	128	0	75	0	74	13	0	110	69	469
6:45 AM	0	0	0	152	0	87	0	76	16	0	87	85	503
7:00 AM	0	0	0	159	0	59	0	96	18	0	106	82	520
7:15 AM	0	0	0	177	0	101	0	133	13	0	141	50	615
7:30 AM	0	0	0	214	0	103	0	131	16	0	159	75	698
7:45 AM	0	0	0	325	0	99	0	128	14	0	163	87	816
8:00 AM	0	0	0	275	0	85	0	122	21	0	169	60	732
8:15 AM	0	0	0	285	0	75	0	124	20	0	154	66	724
8:30 AM	0	0	0	226	0	87	0	104	33	0	128	96	674
8:45 AM	0	0	0	258	0	63	0	108	29	0	141	86	685
9:00 AM	0	0	0	185	0	50	0	141	24	0	143	85	628
9:15 AM	0	0	0	199	0	45	0	143	28	0	128	87	630
Volumes	0	0	0	2583	0	929	0	1380	245	0	1629	928	7694
Approach %	#DIV/0!	#DIV/0!	#DIV/0!	73.55	0.00	26.45	0.00	84.92	15.08	0.00	63.71	36.29	
App/Depart	0	/	928	3512	/	245	1625	/	3963	2557	/	2558	
Peak Volumes	0	0	0	1099	0	362	0	505	71	0	645	288	2970
Approach %	#DIV/0!	#DIV/0!	#DIV/0!	75.22	0.00	24.78	0.00	87.67	12.33	0.00	69.13	30.87	
Pk Hr FACTOR:	0.00			0.86			0.98			0.93			0.9099
AM Pk Hr at:	730												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	0	0	0	138	0	47	0	175	41	1	161	183	746
3:45 PM	0	0	0	151	0	53	0	147	39	0	148	185	723
4:00 PM	0	0	0	132	0	35	0	171	49	0	157	226	770
4:15 PM	0	0	0	127	0	34	0	168	46	0	164	194	733
4:30 PM	0	0	0	160	0	31	0	206	45	0	140	232	814
4:45 PM	0	0	0	123	0	41	0	187	54	0	191	215	811
5:00 PM	0	0	0	142	0	44	0	200	70	0	163	265	884
5:15 PM	0	0	0	142	0	48	0	237	55	1	178	270	931
5:30 PM	0	0	0	145	1	23	0	202	66	0	209	266	912
5:45 PM	0	0	0	152	1	32	0	186	30	0	162	247	810
6:00 PM	0	0	0	150	0	32	0	164	52	2	164	250	814
6:15 PM	0	0	0	126	0	36	0	166	50	0	172	229	779
Volumes	0	0	0	1688	2	456	0	2209	597	4	2009	2762	9727
Approach %	#DIV/0!	#DIV/0!	#DIV/0!	78.66	0.09	21.25	0.00	78.72	21.28	0.08	42.07	57.84	
App/Depart	0	/	2762	2146	/	603	2806	/	3897	4775	/	2465	
Peak Volumes	0	0	0	552	1	156	0	826	245	1	741	1016	3538
Approach %	#DIV/0!	#DIV/0!	#DIV/0!	77.86	0.14	22.00	0.00	77.12	22.88	0.06	42.15	57.79	
Pk Hr FACTOR:	0.00			0.93			0.92			0.93			0.9501
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 49

Intersection Location: I-5 NB Ramps & Palomar Airport Rd.

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I-5 Northbound Ramps at Palomar Airport Road

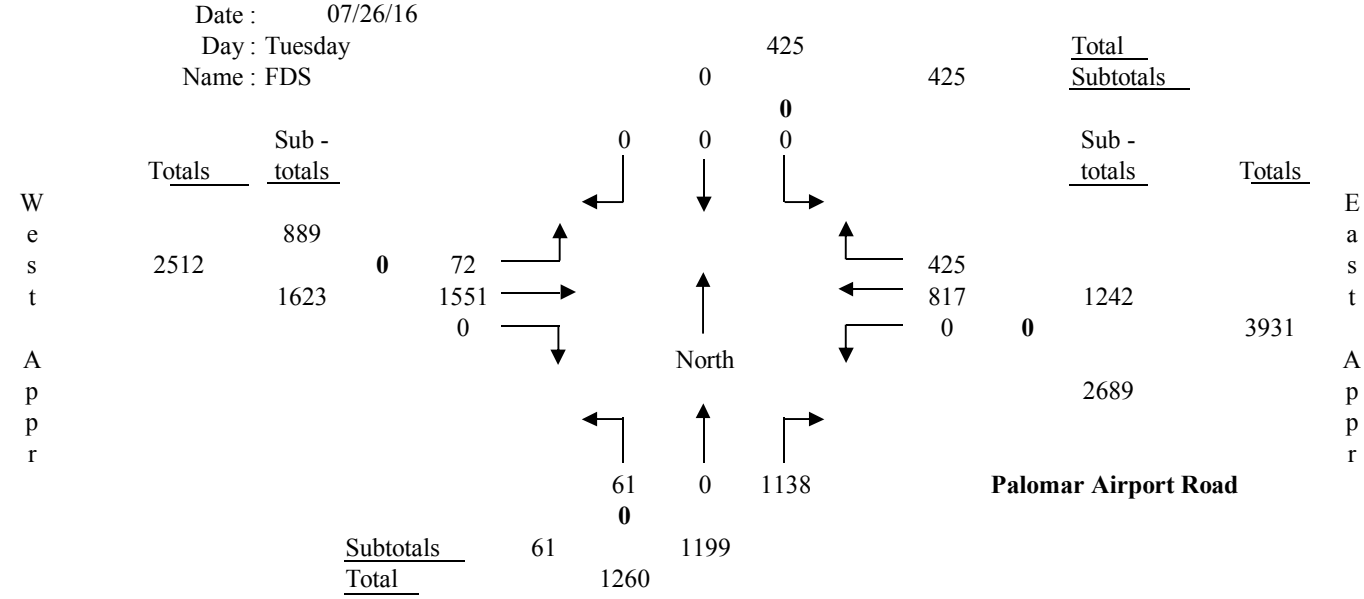
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside Free-flow	7												
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			61	0	1138	0	0	0	72	1551	0	0	817	425
Adjusted Hourly Volume			61	0	1138	0	0	0	72	1551	0	0	817	425
Utilization Factor			0.03	0.00	0.32	0.00	0.00	0.00	0.04	0.26	0.00	0.00	0.14	0.12
Critical Factors					0.32	0.00				0.26		0.00		

ICU Ratio = 0.68 LOS = B

Turning Movements at Intersection of : **I-5 Northbound Ramps and Palomar Airport Road**

Time : 7:45 AM
to 8:45 AM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

I-5 Northbound Ramps at Palomar Airport Road

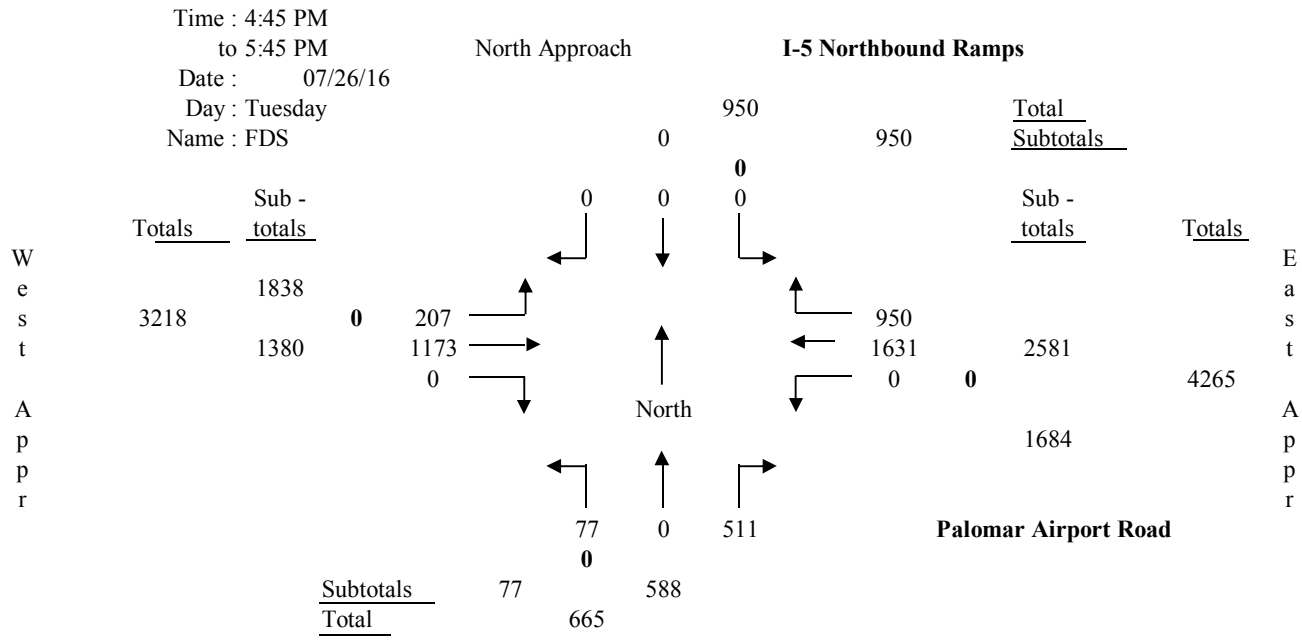
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			77	0	511	0	0	0	207	1173	0	0	1631	950
Adjusted Hourly Volume			77	0	511	0	0	0	207	1173	0	0	1631	950
Utilization Factor			0.04	0.00	0.14	0.00	0.00	0.00	0.12	0.20	0.00	0.00	0.27	0.26
Critical Factors					0.14	0.00			0.12				0.27	

ICU Ratio = 0.63 LOS = B

Turning Movements at Intersection of : **I-5 Northbound Ramps and Palomar Airport Road**

Time : 4:45 PM
to 5:45 PM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: I-5 NB Ramps
DATE: 07/26/2016
LOCATION: Carlsbad

E-W STREET: Palomar Airport Rd.
DAY: TUESDAY
PROJECT# 16-1256-049

CONTROL: Signal

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0.5	2	0	0	0	1	3	0	0	3	2	
6:30 AM	19	0	218	0	0	0	19	169	0	0	174	96	695
6:45 AM	13	2	244	0	0	0	16	214	0	0	158	86	733
7:00 AM	8	1	258	0	0	0	20	241	0	0	181	85	794
7:15 AM	11	1	325	0	0	0	24	258	0	0	187	87	893
7:30 AM	10	0	341	0	0	0	28	328	0	0	185	104	996
7:45 AM	14	0	244	0	0	0	21	422	0	0	196	122	1019
8:00 AM	8	0	258	0	0	0	14	411	0	0	214	101	1006
8:15 AM	19	0	325	0	0	0	18	355	0	0	222	103	1042
8:30 AM	20	0	311	0	0	0	19	363	0	0	185	99	997
8:45 AM	24	0	298	0	0	0	20	344	0	0	166	96	948
9:00 AM	41	0	263	0	0	0	24	325	0	0	208	85	946
9:15 AM	21	0	259	0	0	0	29	257	0	0	147	87	800
Volumes	208	4	3344	0	0	0	252	3687	0	0	2223	1151	10869
Approach %	5.85	0.11	94.04	#DIV/0!	#DIV/0!	#DIV/0!	6.40	93.60	0.00	0.00	65.89	34.11	
App/Depart	3556	/	1407	0	/	0	3939	/	7031	3374	/	2431	
Peak Volumes	61	0	1138	0	0	0	72	1551	0	0	817	425	4064
Approach %	5.09	0.00	94.91	#DIV/0!	#DIV/0!	#DIV/0!	4.44	95.56	0.00	0.00	65.78	34.22	
Pk Hr FACTOR:	0.87			0.00			0.92			0.96			0.975
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	17	0	141	0	0	0	54	262	0	0	325	186	985
3:45 PM	22	0	164	0	0	0	37	255	0	0	314	207	999
4:00 PM	10	0	147	0	0	0	50	268	0	0	353	208	1036
4:15 PM	18	0	129	0	0	0	35	251	0	0	303	232	968
4:30 PM	16	0	148	0	0	0	52	321	0	0	366	250	1153
4:45 PM	22	0	135	0	0	0	36	267	0	0	375	257	1092
5:00 PM	17	0	132	0	0	0	65	287	0	0	425	227	1153
5:15 PM	13	0	123	0	0	0	55	315	0	0	410	230	1146
5:30 PM	25	0	121	0	0	0	51	304	0	0	421	236	1158
5:45 PM	30	0	139	0	0	0	57	283	0	0	357	145	1011
6:00 PM	24	0	156	0	0	0	58	254	0	0	408	117	1017
6:15 PM	31	0	142	0	0	0	53	177	0	0	320	112	835
Volumes	245	0	1677	0	0	0	603	3244	0	0	4377	2407	12553
Approach %	12.75	0.00	87.25	#DIV/0!	#DIV/0!	#DIV/0!	15.67	84.33	0.00	0.00	64.52	35.48	
App/Depart	1922	/	3010	0	/	0	3847	/	4921	6784	/	4622	
Peak Volumes	77	0	511	0	0	0	207	1173	0	0	1631	950	4549
Approach %	13.10	0.00	86.90	#DIV/0!	#DIV/0!	#DIV/0!	15.00	85.00	0.00	0.00	63.19	36.81	
Pk Hr FACTOR:	0.94			0.00			0.93			0.98			0.9821
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 15

Intersection Location: Palomar Airport Rd. & Paseo Del Norte

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Palomar Airport Road at Paseo Del Norte

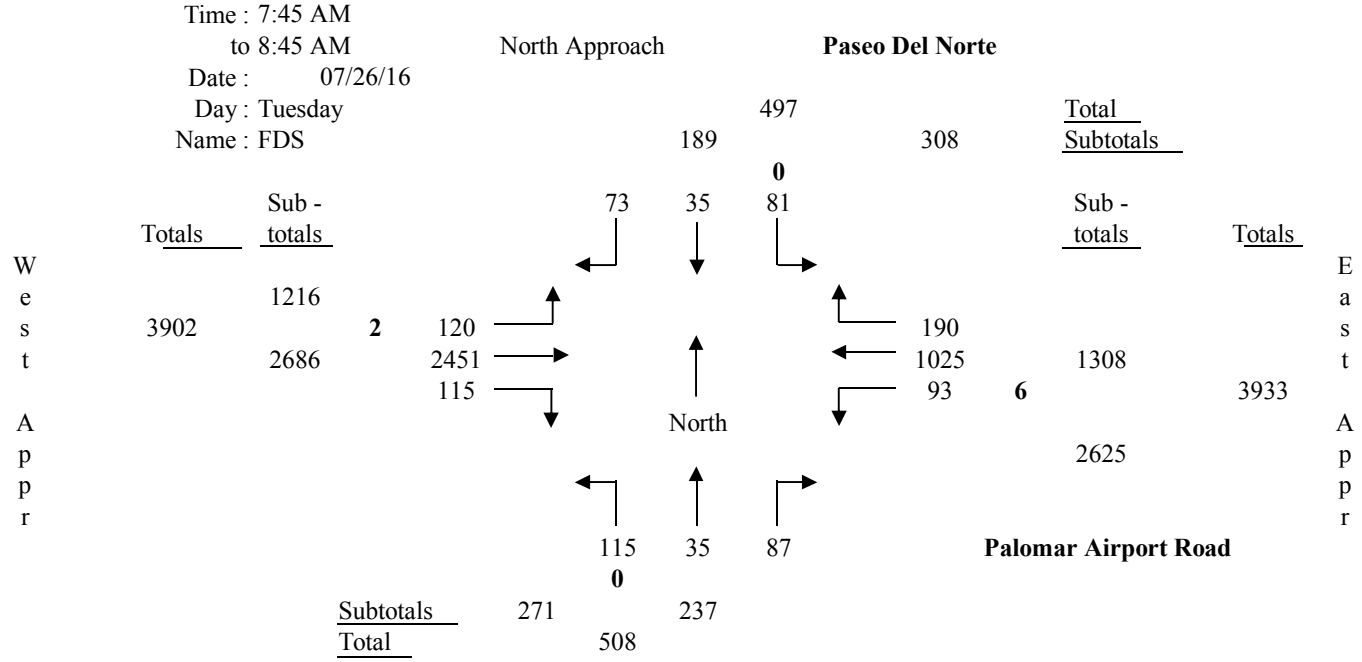
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			115	35	87	81	35	73	120	2451	115	93	1025	190
Adjusted Hourly Volume			115	0	122	81	0	108	120	2566	0	93	1025	150
Utilization Factor			0.03	0.00	0.07	0.02	0.00	0.06	0.03	0.43	0.00	0.03	0.13	0.08
Critical Factors			0.03					0.06		0.43		0.03		

ICU Ratio = 0.65 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Paseo Del Norte**

Time : 7:45 AM
to 8:45 AM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at Paseo Del Norte

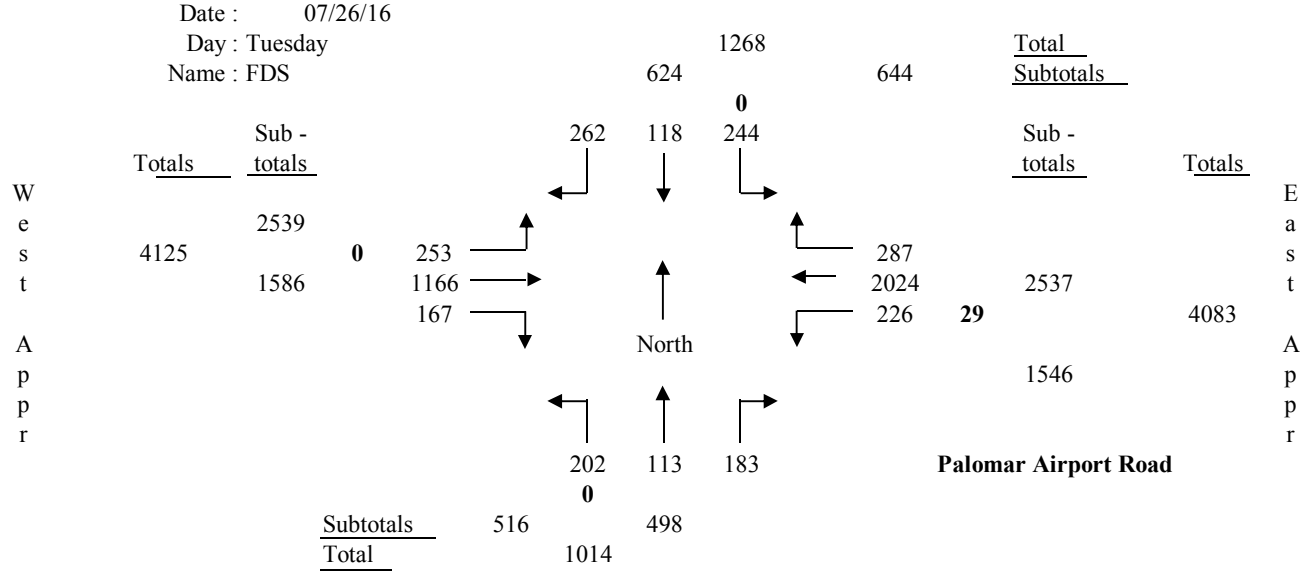
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	113	183	244	118	262	253	1166	167	226	2024	287
Adjusted Hourly Volume			202	0	296	244	0	380	253	1333	0	226	2024	165
Utilization Factor			0.06	0.00	0.16	0.07	0.00	0.21	0.07	0.22	0.00	0.06	0.25	0.09
Critical Factors			0.06					0.21	0.07				0.25	

ICU Ratio = 0.69 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Paseo Del Norte**

Time : 4:45 PM
to 5:45 PM
Date : 07/26/16
Day : Tuesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Paseo Del Norte	DATE:	07/26/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	TUESDAY	PROJECT#	16-1256-015
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	2	3	0	2	4	1	
6:30 AM	21	9	16	10	8	14	16	325	19	11	187	25	661
6:45 AM	25	5	13	11	5	10	14	369	22	11	185	30	700
7:00 AM	28	8	18	8	9	11	18	424	20	11	214	29	798
7:15 AM	24	4	22	13	11	13	21	411	24	14	258	42	857
7:30 AM	26	7	20	16	10	16	23	456	28	21	244	41	908
7:45 AM	33	10	24	14	14	18	15	663	24	17	278	54	1164
8:00 AM	30	11	28	21	7	14	41	585	29	23	258	50	1097
8:15 AM	28	9	21	25	5	21	42	548	30	25	244	45	1043
8:30 AM	24	5	14	21	9	20	22	655	32	28	245	41	1116
8:45 AM	21	8	18	10	6	18	14	658	28	22	236	43	1082
9:00 AM	41	11	20	11	8	13	41	606	21	21	214	41	1048
9:15 AM	42	8	24	8	7	16	46	459	14	19	188	19	850
Volumes	343	95	238	168	99	184	313	6159	291	223	2751	460	11324
Approach %	50.74	14.05	35.21	37.25	21.95	40.80	4.63	91.07	4.30	6.49	80.11	13.40	
App/Depart	676	/	868	451	/	613	6763	/	6565	3434	/	3278	
Peak Volumes	115	35	87	81	35	73	120	2451	115	93	1025	190	4420
Approach %	48.52	14.77	36.71	42.86	18.52	38.62	4.47	91.25	4.28	7.11	78.36	14.53	
Pk Hr FACTOR:	0.86			0.93			0.95			0.94			0.9493
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	40	19	37	77	35	64	51	285	39	46	416	53	1162
3:45 PM	42	33	42	55	29	59	62	314	45	54	381	65	1181
4:00 PM	45	24	31	58	34	78	47	273	41	52	453	55	1191
4:15 PM	50	28	38	76	14	63	52	276	35	59	447	54	1192
4:30 PM	58	32	35	72	32	64	57	324	48	28	360	32	1142
4:45 PM	58	24	49	56	24	75	62	300	41	37	464	62	1252
5:00 PM	54	35	40	67	29	60	69	264	38	61	498	61	1276
5:15 PM	34	22	48	55	32	72	60	307	46	64	529	90	1359
5:30 PM	56	32	46	66	33	55	62	295	42	64	533	74	1358
5:45 PM	41	33	52	45	20	63	61	324	36	64	439	63	1241
6:00 PM	51	35	61	64	28	57	59	290	39	47	447	51	1229
6:15 PM	53	25	34	57	34	55	51	272	22	45	417	52	1117
Volumes	582	342	513	748	344	765	693	3524	472	621	5384	712	14700
Approach %	40.50	23.80	35.70	40.28	18.52	41.20	14.78	75.15	10.07	9.25	80.15	10.60	
App/Depart	1437	/	1747	1857	/	1437	4689	/	4785	6717	/	6731	
Peak Volumes	202	113	183	244	118	262	253	1166	167	226	2024	287	5245
Approach %	40.56	22.69	36.75	39.10	18.91	41.99	15.95	73.52	10.53	8.91	79.78	11.31	
Pk Hr FACTOR:	0.93			0.98			0.96			0.93			0.9649
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 16

Intersection Location: Palomar Airport Rd. & Armada Dr.

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Address Line 3
Address Line 4

O: 760.476.9196
F: 760.476.9198
Email: someone@example.com

Palomar Airport Road at Armada Drive

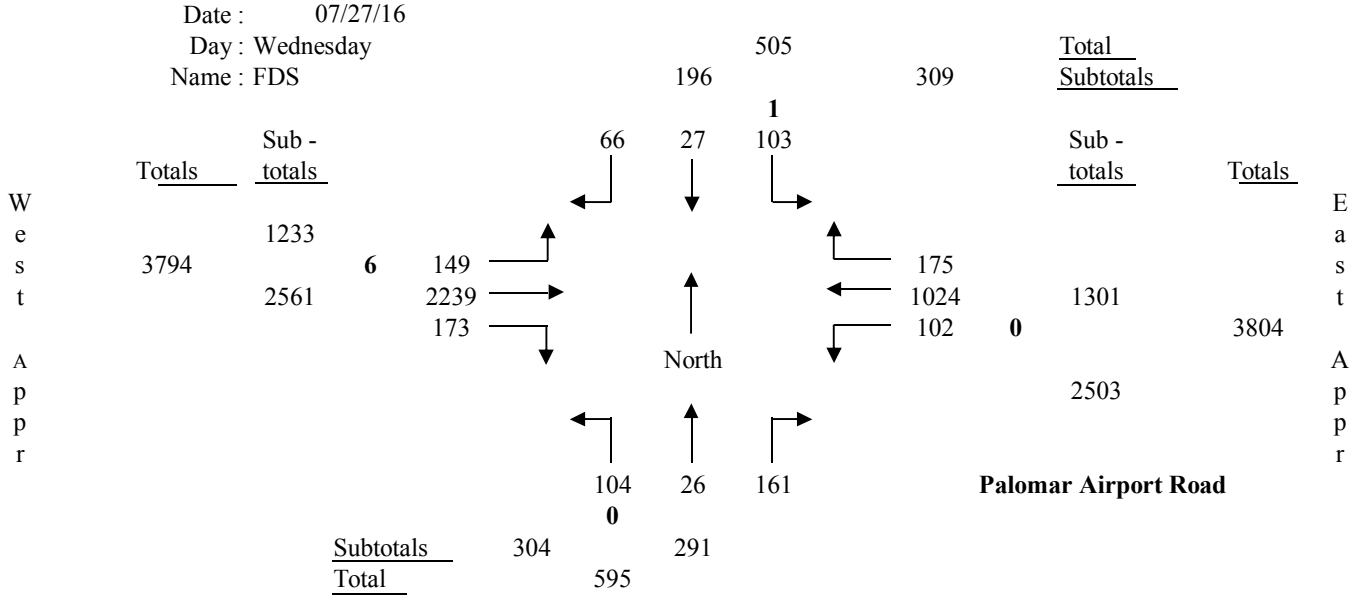
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			104	26	161	103	27	66	149	2239	173	102	1024	175
Adjusted Hourly Volume			104	0	187	103	27	66	149	2239	121	102	1024	124
Utilization Factor			0.03	0.00	0.05	0.03	0.01	0.04	0.04	0.37	0.07	0.06	0.17	0.07
Critical Factors					0.05	0.03				0.37		0.06		

ICU Ratio = 0.61 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Armada Drive**

Time : 7:45 AM
to 8:45 AM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at Armada Drive

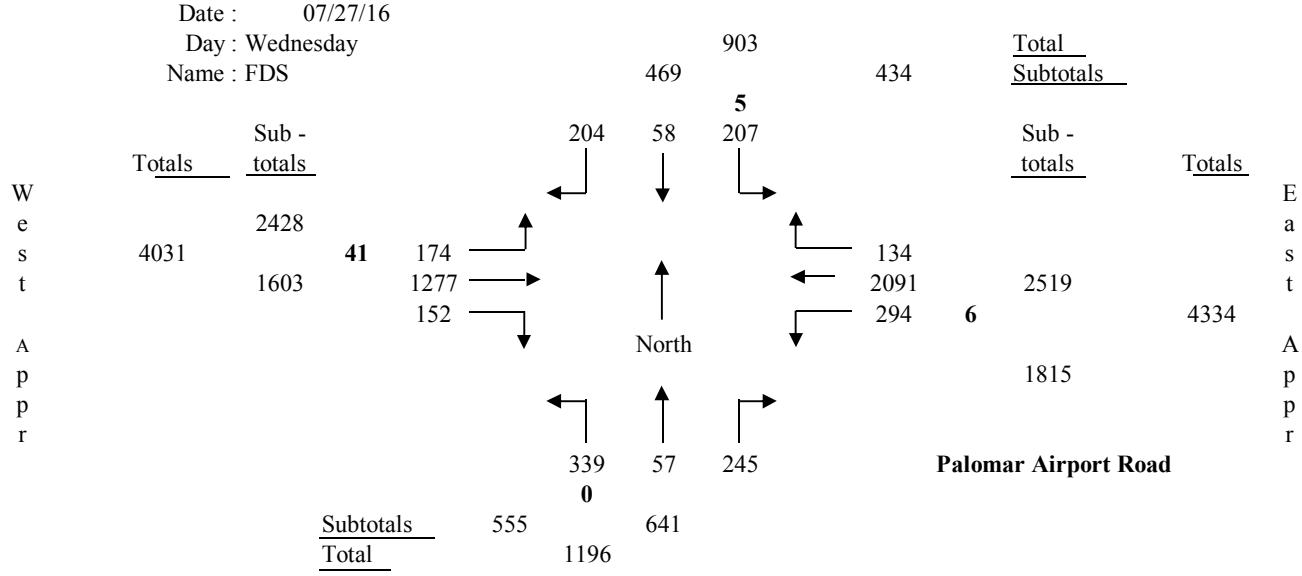
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			339	57	245	207	58	204	174	1277	152	294	2091	134
Adjusted Hourly Volume			339	0	302	207	58	204	174	1277	0	294	2091	31
Utilization Factor			0.09	0.00	0.08	0.06	0.03	0.11	0.05	0.21	0.00	0.16	0.35	0.02
Critical Factors			0.09					0.11	0.05				0.35	

ICU Ratio = 0.70 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Armada Drive**

Time : 4:45 PM
to 5:45 PM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Armada Dr. /Costco Ent
DATE: 07/27/2016
LOCATION: Carlsbad

E-W STREET: Palomar Airport Rd.
DAY: WEDNESDAY
PROJECT# 16-1256-016

CONTROL: Signal

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	0.5	1.5	1	2	1	2	3	1	1	3	1	
6:30 AM	28	8	12	7	5	4	14	277	22	12	177	28	594
6:45 AM	18	5	18	6	9	10	17	390	36	10	251	33	803
7:00 AM	21	6	39	16	6	8	17	368	37	19	226	25	788
7:15 AM	18	3	41	15	6	6	25	402	48	19	224	38	845
7:30 AM	35	5	44	21	8	10	27	523	49	29	250	52	1053
7:45 AM	33	8	39	38	9	19	44	582	45	30	246	62	1155
8:00 AM	28	5	42	28	9	14	29	562	36	25	250	43	1071
8:15 AM	21	6	40	20	3	20	33	542	44	30	224	31	1014
8:30 AM	22	7	40	17	6	13	43	553	48	17	304	39	1109
8:45 AM	33	10	36	31	9	17	54	538	43	24	279	55	1129
9:00 AM	43	6	39	11	6	16	42	460	38	43	258	39	1001
9:15 AM	43	7	30	14	9	21	44	423	53	24	305	39	1012
Volumes	343	76	420	224	85	158	389	5620	499	282	2994	484	11574
Approach %	40.88	9.06	50.06	47.97	18.20	33.83	5.98	86.36	7.67	7.50	79.63	12.87	
App/Depart	839	/	949	467	/	866	6508	/	6264	3760	/	3495	
Peak Volumes	104	26	161	103	27	66	149	2239	173	102	1024	175	4349
Approach %	35.74	8.93	55.33	52.55	13.78	33.67	5.82	87.43	6.76	7.84	78.71	13.45	
Pk Hr FACTOR:	0.91			0.74			0.95			0.90			0.9413
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	101	14	65	71	25	54	20	280	36	61	407	25	1159
3:45 PM	92	14	73	55	18	39	32	248	37	60	430	29	1127
4:00 PM	79	8	82	50	19	39	22	289	40	73	469	35	1205
4:15 PM	74	15	71	46	20	35	33	277	36	64	468	27	1166
4:30 PM	77	15	69	42	8	34	20	351	40	53	494	26	1229
4:45 PM	93	10	58	37	9	40	30	379	39	78	443	32	1248
5:00 PM	81	14	76	70	18	55	62	283	34	68	569	23	1353
5:15 PM	86	18	66	54	16	54	40	302	40	68	556	47	1347
5:30 PM	79	15	45	46	15	55	42	313	39	80	523	32	1284
5:45 PM	85	12	77	37	13	56	37	252	34	68	432	23	1126
6:00 PM	84	21	60	32	19	44	30	264	46	61	453	22	1136
6:15 PM	80	13	59	32	7	54	29	260	36	56	388	16	1030
Volumes	1011	169	801	572	187	559	397	3498	457	790	5632	337	14410
Approach %	51.03	8.53	40.43	43.40	14.19	42.41	9.12	80.38	10.50	11.69	83.33	4.99	
App/Depart	1981	/	903	1318	/	1434	4352	/	4871	6759	/	7202	
Peak Volumes	339	57	245	207	58	204	174	1277	152	294	2091	134	5232
Approach %	52.89	8.89	38.22	44.14	12.37	43.50	10.85	79.66	9.48	11.67	83.01	5.32	
Pk Hr FACTOR:	0.94			0.82			0.89			0.94			0.9667
PM Pk Hr at:	445												

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

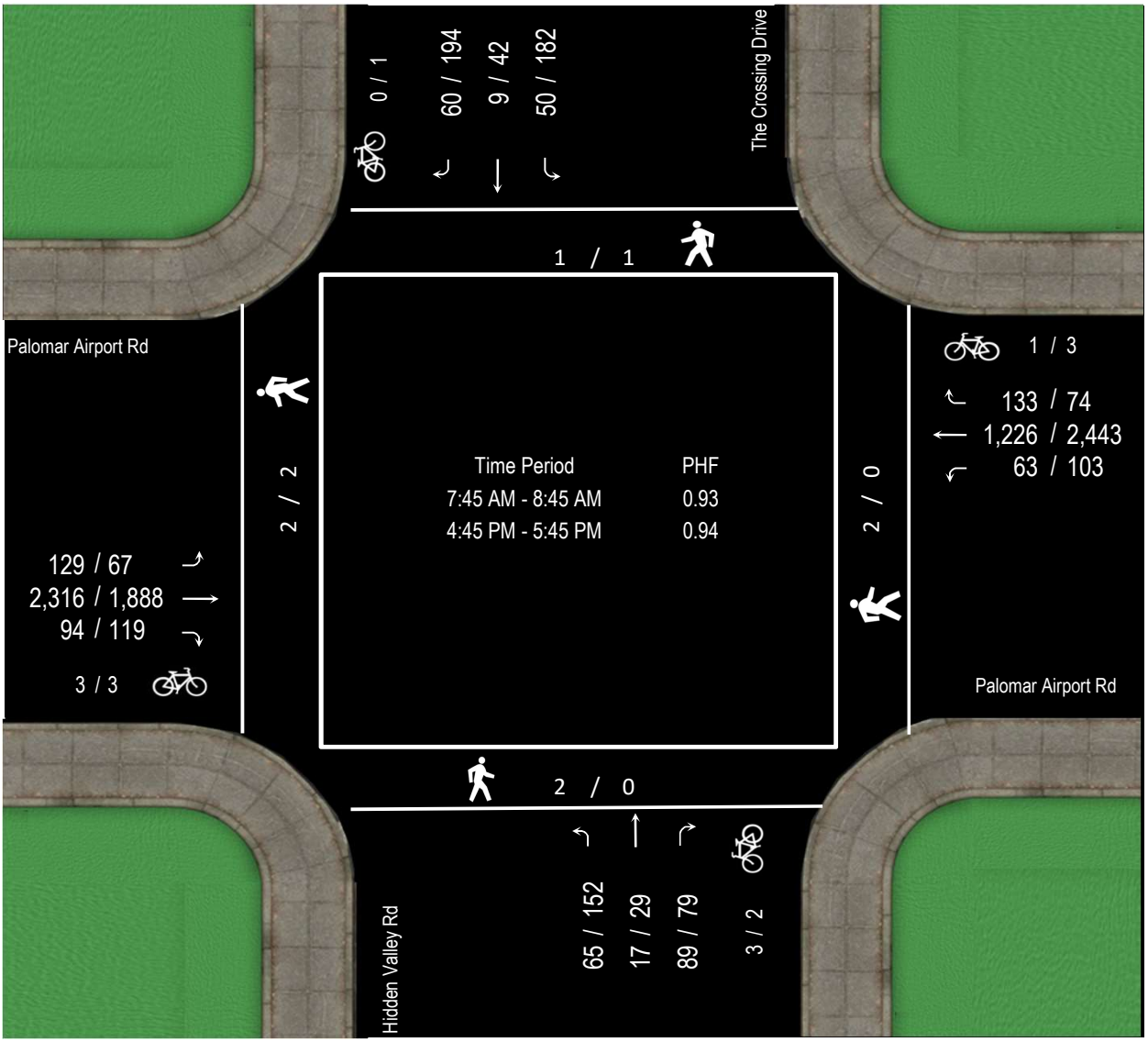
Location: Palomar Airport Rd @ Hidden Valley Rd

Date of Count: *Wednesday, June 21, 2017*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *17-0703*



LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Palomar Airport Rd @ Hidden Valley Rd

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	8	1	7	25	228	6	6	2	10	17	377	15	702
7:15 AM	10	3	10	22	259	11	12	1	12	19	480	15	854
7:30 AM	7	2	15	29	267	11	16	5	14	27	530	33	956
7:45 AM	10	3	11	30	307	16	21	4	15	26	675	24	1,142
8:00 AM	7	1	13	23	258	17	20	2	18	19	570	23	971
8:15 AM	17	4	12	37	323	13	19	2	11	28	560	29	1,055
8:30 AM	26	1	14	43	338	17	29	9	21	21	511	53	1,083
8:45 AM	19	1	18	43	319	15	25	4	11	25	513	44	1,037
Total	104	16	100	252	2,299	106	148	29	112	182	4,216	236	7,800

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.93**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	60	9	50	133	1,226	63	89	17	65	94	2,316	129	4,251
PHF	0.58	0.56	0.89	0.77	0.91	0.93	0.77	0.47	0.77	0.84	0.86	0.61	0.93
Movement PHF		0.73			0.89			0.72			0.88		0.93

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	55	8	48	33	512	20	22	8	36	29	415	25	1,211
4:15 PM	40	2	45	36	479	14	18	7	16	27	465	18	1,167
4:30 PM	57	7	45	19	597	19	27	8	45	21	439	15	1,299
4:45 PM	43	12	30	19	539	23	9	9	35	22	466	28	1,235
5:00 PM	49	18	58	17	631	19	29	4	43	33	486	18	1,405
5:15 PM	50	4	47	28	675	29	10	9	31	30	499	11	1,423
5:30 PM	52	8	47	10	598	32	31	7	43	34	437	10	1,309
5:45 PM	33	5	22	15	498	25	16	7	32	18	396	17	1,084
Total	379	64	342	177	4,529	181	162	59	281	214	3,603	142	10,133

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **0.94**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	194	42	182	74	2443	103	79	29	152	119	1888	67	5372
PHF	0.93	0.583	0.784	0.661	0.905	0.805	0.637	0.806	0.884	0.875	0.946	0.598	0.94
Movement PHF		0.84			0.89			0.80			0.96		0.94

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 17

Intersection Location: Palomar Airport Rd. & College Blvd./Aviara Pkwy.

Contents:

A.M. Peak Hour ICU Analysis and Turn Movement Diagram
Page 1

P.M. Peak Hour ICU Analysis and Turn Movement Diagram
Page 2

A.M./P.M. Peak Period Intersection Turning Movement Count Data
Page 3

Michael Baker
INTERNATIONAL

5050 Avenida Encinias, Ste 260
Carlsbad, CA 92008
Address Line 3
Address Line 4

O: 760.476.9196
F: 760.476.9198
Email: someone@example.com

Palomar Airport Road at College Boulevard/ Aviara Parkway

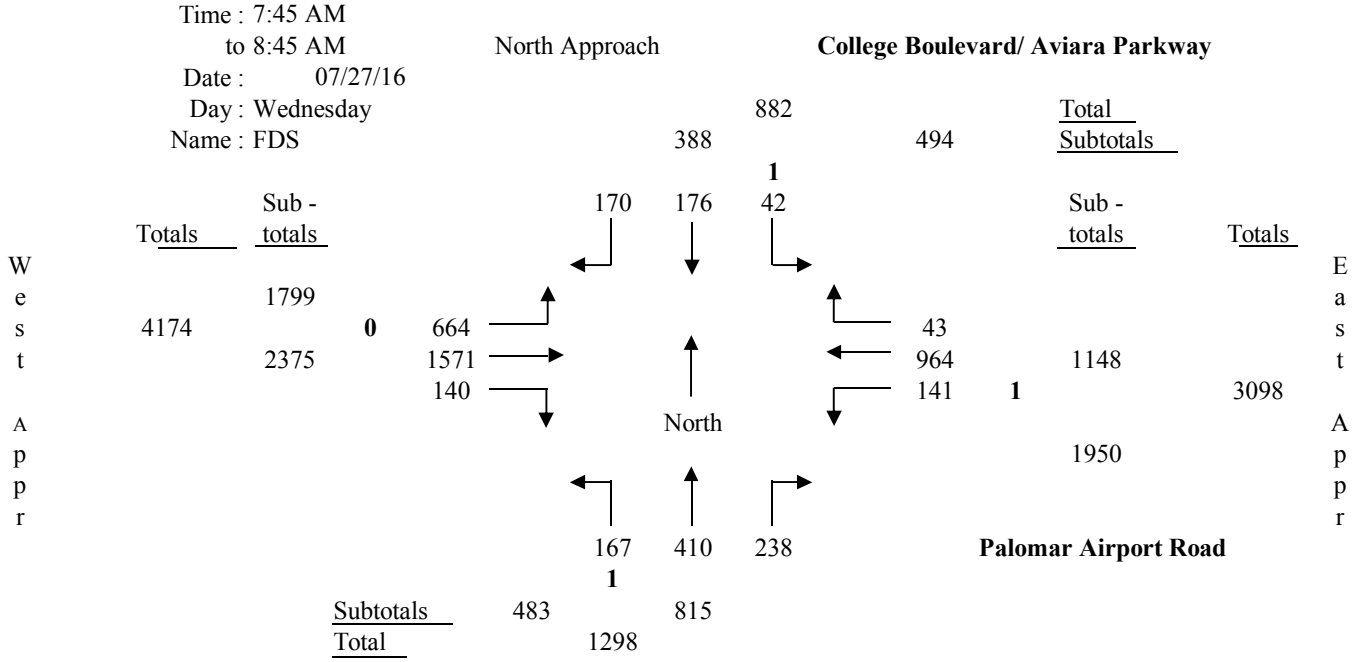
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	410	238	42	176	170	664	1571	140	141	964	43
Adjusted Hourly Volume			167	410	238	42	176	0	664	1571	140	141	964	43
Utilization Factor			0.05	0.10	0.13	0.02	0.09	0.00	0.18	0.26	0.08	0.04	0.16	0.02
Critical Factors					0.13	0.02			0.18				0.16	

ICU Ratio = 0.59 LOS = A

Turning Movements at Intersection of : **Palomar Airport Road and College Boulevard/ Aviara Parkway**

Time : 7:45 AM
to 8:45 AM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at College Boulevard/ Aviara Parkway

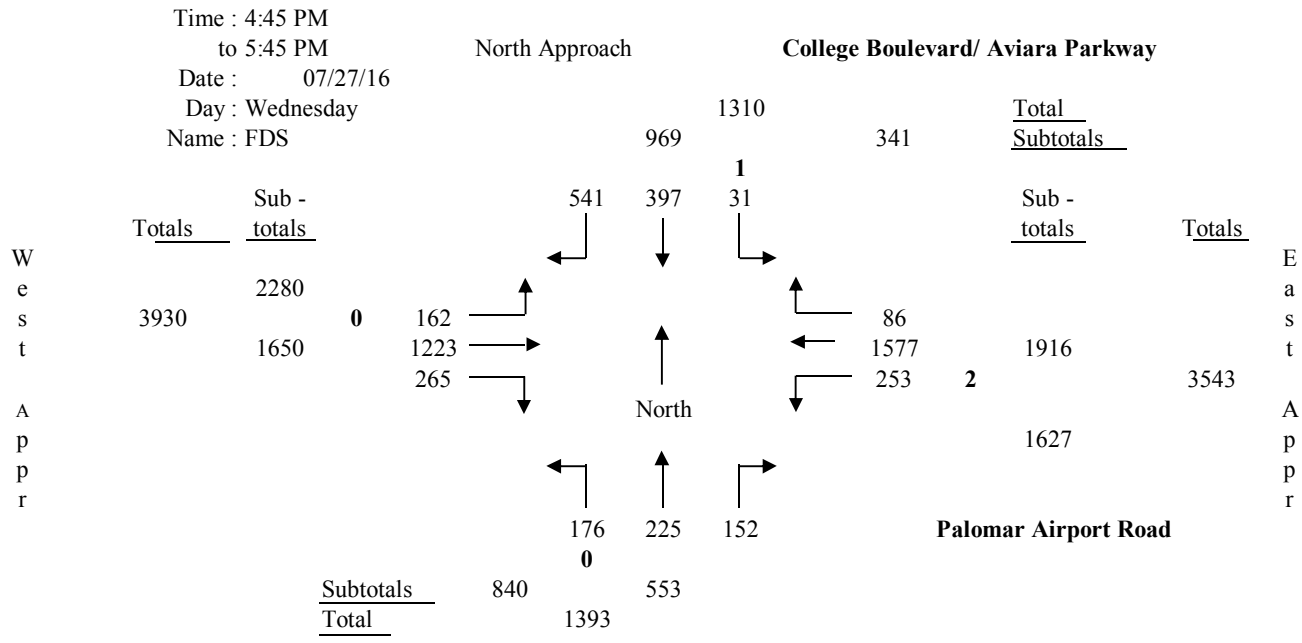
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			176	225	152	31	397	541	162	1223	265	253	1577	86
Adjusted Hourly Volume			176	225	152	31	397	460	162	1223	265	253	1577	86
Utilization Factor			0.05	0.06	0.08	0.02	0.20	0.26	0.05	0.20	0.15	0.07	0.26	0.05
Critical Factors			0.05					0.26	0.05				0.26	

ICU Ratio = 0.72 LOS = C

Turning Movements at Intersection of : **Palomar Airport Road and College Boulevard/ Aviara Parkway**

Time : 4:45 PM
to 5:45 PM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: College Blvd./ Aviara Pkwy. DATE: 07/27/2016 LOCATION: Carlsbad

E-W STREET: Palomar Airport Rd. DAY: WEDNESDAY PROJECT# 16-1256-017

CONTROL: Signal

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	1	1	1	2	3	1	2	3	1	
6:30 AM	26	20	30	10	21	25	61	202	17	18	194	3	627
6:45 AM	37	24	17	8	16	39	117	287	21	21	218	9	814
7:00 AM	29	28	33	4	25	28	107	263	24	18	206	7	772
7:15 AM	35	56	48	16	45	35	121	302	28	27	201	10	924
7:30 AM	47	67	60	12	40	31	158	386	28	26	236	11	1102
7:45 AM	42	105	59	9	42	38	175	435	26	39	276	12	1258
8:00 AM	38	104	69	12	41	39	164	401	28	33	234	6	1169
8:15 AM	32	100	56	14	45	46	137	399	45	35	234	12	1155
8:30 AM	55	101	54	7	48	47	188	336	41	34	220	13	1144
8:45 AM	51	83	58	9	34	48	168	351	42	45	303	6	1198
9:00 AM	47	59	46	8	22	48	179	329	31	28	199	7	1003
9:15 AM	46	46	37	7	19	46	81	305	34	34	286	8	949
Volumes	485	793	567	116	398	470	1656	3996	365	358	2807	104	12115
Approach %	26.29	42.98	30.73	11.79	40.45	47.76	27.52	66.41	6.07	10.95	85.87	3.18	
App/Depart	1845	/	2553	984	/	1121	6017	/	4679	3269	/	3762	
Peak Volumes	167	410	238	42	176	170	664	1571	140	141	964	43	4726
Approach %	20.49	50.31	29.20	10.82	45.36	43.81	27.96	66.15	5.89	12.28	83.97	3.75	
Pk Hr FACTOR:	0.97			0.92			0.93			0.88			0.9392
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	35	33	37	7	55	105	31	318	66	35	332	14	1068
3:45 PM	45	31	35	8	50	90	31	296	53	52	302	28	1021
4:00 PM	50	31	34	7	64	142	37	317	50	45	373	22	1172
4:15 PM	27	37	33	6	74	90	35	279	68	36	331	18	1034
4:30 PM	51	43	45	6	69	110	33	248	75	57	381	31	1149
4:45 PM	33	46	45	6	73	95	33	297	54	51	345	19	1097
5:00 PM	45	69	36	9	132	179	48	290	66	71	435	34	1414
5:15 PM	54	69	36	11	105	137	38	320	71	67	447	19	1374
5:30 PM	44	41	35	5	87	130	43	316	74	64	350	14	1203
5:45 PM	53	41	33	6	61	111	41	258	54	44	326	11	1039
6:00 PM	48	32	31	2	53	111	27	298	57	31	331	8	1029
6:15 PM	39	25	29	3	56	90	21	288	47	37	280	6	921
Volumes	524	498	429	76	879	1390	418	3525	735	590	4233	224	13521
Approach %	36.11	34.32	29.57	3.24	37.48	59.28	8.94	75.35	15.71	11.69	83.87	4.44	
App/Depart	1451	/	1140	2345	/	2204	4678	/	4030	5047	/	6147	
Peak Volumes	176	225	152	31	397	541	162	1223	265	253	1577	86	5088
Approach %	31.83	40.69	27.49	3.20	40.97	55.83	9.82	74.12	16.06	13.20	82.31	4.49	
Pk Hr FACTOR:	0.87			0.76			0.95			0.89			0.8996
PM Pk Hr at:	445												

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Palomar Airport Rd @ Camino Vida Roble

Date of Count: *Wednesday, June 21, 2017*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *17-0703*

LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Palomar Airport Rd @ Camino Vida Roble

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	3	2	8	77	224	24	6	8	21	47	206	20	646
7:15 AM	7	10	7	76	233	35	16	10	32	41	244	28	739
7:30 AM	12	11	10	87	244	32	10	21	19	59	271	44	820
7:45 AM	12	7	18	122	217	52	10	25	28	90	279	35	895
8:00 AM	10	8	14	70	283	54	15	20	29	101	388	26	1,018
8:15 AM	16	5	16	64	272	46	15	24	32	83	352	42	967
8:30 AM	5	0	6	53	252	22	14	13	27	73	394	22	881
8:45 AM	10	9	16	60	272	42	16	12	23	85	314	32	891
Total	75	52	95	609	1,997	307	102	133	211	579	2,448	249	6,857

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	43	20	54	309	1,024	174	54	82	116	347	1,413	125	3,761
PHF	0.67	0.63	0.75	0.63	0.90	0.81	0.90	0.82	0.91	0.86	0.90	0.74	0.92
Movement PHF		0.79			0.93			0.89			0.92		0.92

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	56	30	113	10	308	15	37	13	75	68	369	6	1,100
4:15 PM	30	19	58	14	305	6	29	4	48	44	365	11	933
4:30 PM	48	32	91	13	326	4	36	7	91	52	405	9	1,114
4:45 PM	29	22	89	8	331	21	39	10	62	73	365	10	1,059
5:00 PM	62	46	121	8	307	12	69	7	110	68	408	4	1,222
5:15 PM	49	18	61	10	405	9	27	6	91	50	377	9	1,112
5:30 PM	25	9	47	9	308	13	42	2	64	41	322	6	888
5:45 PM	20	12	21	12	244	10	42	4	52	61	288	6	772
Total	319	188	601	84	2,534	90	321	53	593	457	2,899	61	8,200

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.92**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	188	118	362	39	1369	46	171	30	354	243	1555	32	4507
PHF	0.76	0.641	0.748	0.75	0.845	0.548	0.62	0.75	0.805	0.832	0.953	0.8	0.92
Movement PHF		0.73			0.86			0.75			0.95		0.92

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 18

Intersection Location: Palomar Airport Rd. & Yarrow Dr.

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Michael Baker
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Palomar Airport Road at Yarrow Drive

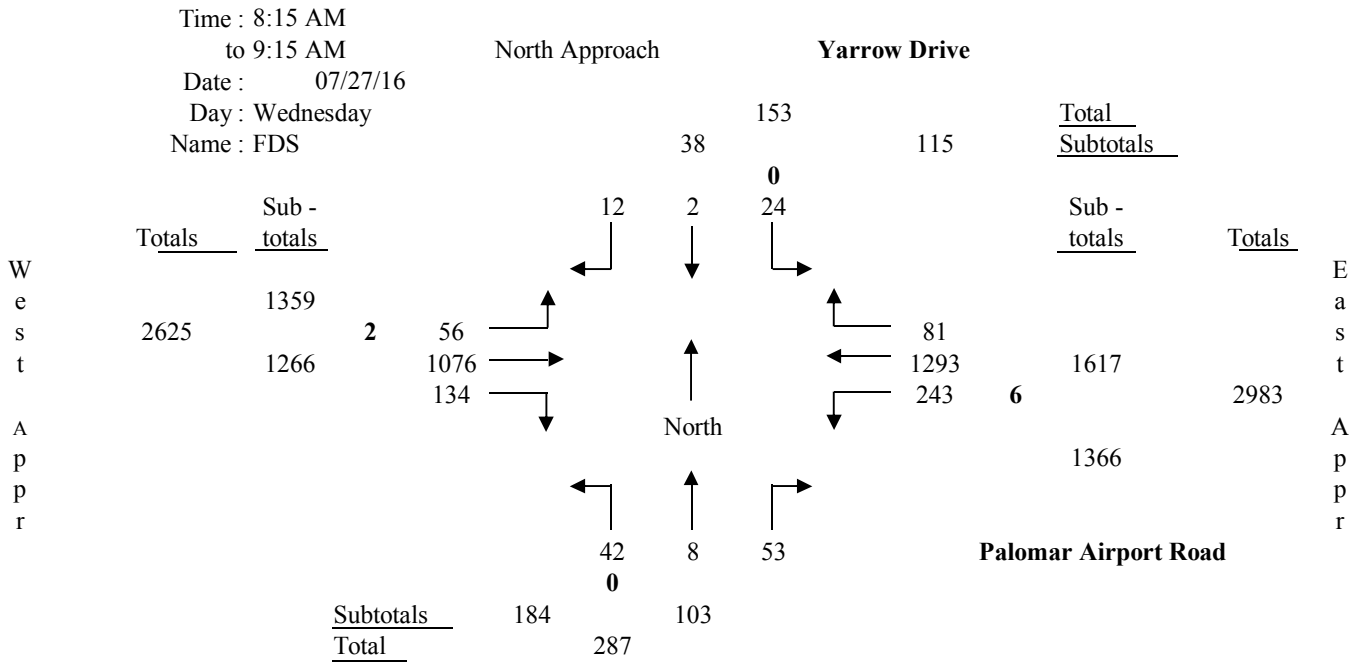
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:15 AM to 9:15 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			42	8	53	24	2	12	56	1076	134	243	1293	81
Adjusted Hourly Volume			42	8	53	38	0	0	56	1210	0	243	1374	0
Utilization Factor			0.02	0.00	0.03	0.02	0.00	0.00	0.03	0.20	0.00	0.14	0.23	0.00
Critical Factors					0.03	0.02				0.20		0.14		

ICU Ratio = 0.49 LOS = A

Turning Movements at Intersection of : **Palomar Airport Road and Yarrow Drive**

Time : 8:15 AM
to 9:15 AM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at Yarrow Drive

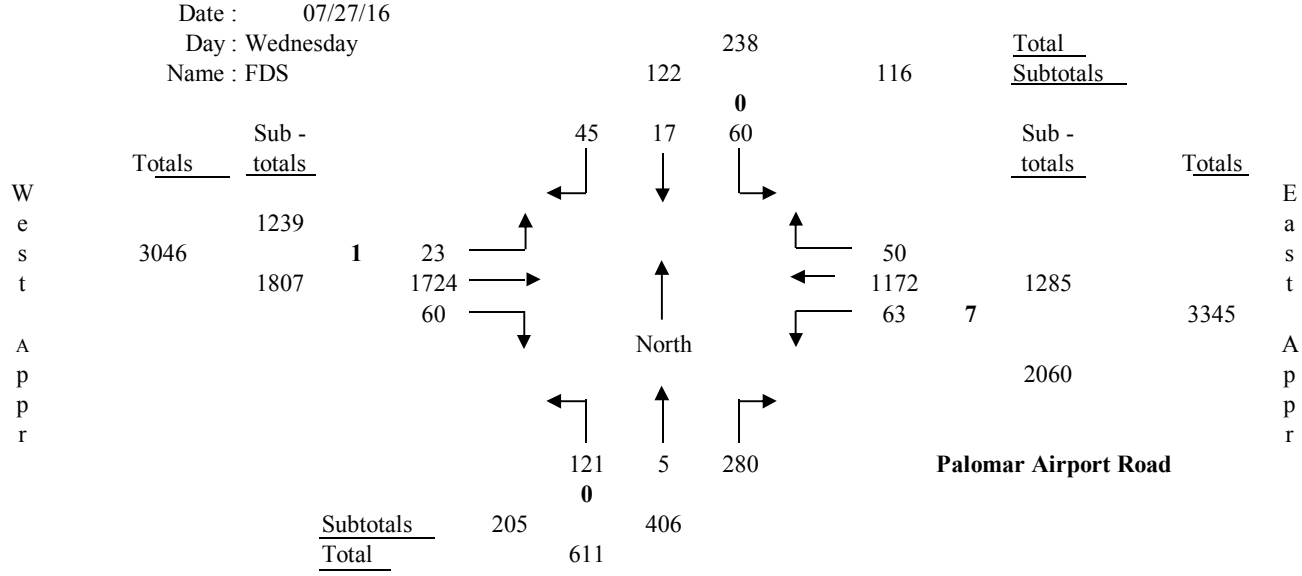
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	5	280	60	17	45	23	1724	60	63	1172	50
Adjusted Hourly Volume			121	5	280	122	0	0	23	1784	0	63	1222	0
Utilization Factor			0.07	0.00	0.16	0.07	0.00	0.00	0.01	0.30	0.00	0.04	0.20	0.00
Critical Factors					0.16	0.07				0.30		0.04		

ICU Ratio = 0.67 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Yarrow Drive**

Time : 4:30 PM
to 5:30 PM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Yarrow Dr.	DATE:	07/27/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	WEDNESDAY	PROJECT#	16-1256-018
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	1	0	1	3	0	1	3	0	
6:30 AM	5	2	3	4	0	1	4	140	19	37	296	10	521
6:45 AM	7	0	11	1	0	0	7	160	21	64	316	8	595
7:00 AM	4	2	5	3	0	4	8	169	25	72	296	13	601
7:15 AM	4	1	12	3	2	3	5	194	33	54	360	14	685
7:30 AM	8	1	21	4	0	1	5	224	27	61	354	13	719
7:45 AM	25	0	15	2	1	2	6	247	31	84	424	20	857
8:00 AM	2	1	13	1	0	5	6	100	15	25	154	2	324
8:15 AM	6	0	13	3	1	3	15	280	28	65	324	18	756
8:30 AM	13	0	13	5	1	3	14	277	42	59	323	16	766
8:45 AM	8	5	13	11	0	2	12	266	31	69	399	30	846
9:00 AM	15	3	14	5	0	4	15	253	33	50	247	17	656
9:15 AM	15	4	21	9	4	5	4	209	24	42	325	22	684
Volumes	112	19	154	51	9	33	101	2519	329	682	3818	183	8010
Approach %	39.30	6.67	54.04	54.84	9.68	35.48	3.42	85.42	11.16	14.56	81.53	3.91	
App/Depart	285	/	303	93	/	1020	2949	/	2724	4683	/	3963	
Peak Volumes	42	8	53	24	2	12	56	1076	134	243	1293	81	3024
Approach %	40.78	7.77	51.46	63.16	5.26	31.58	4.42	84.99	10.58	15.03	79.96	5.01	
Pk Hr FACTOR:	0.80			0.73			0.95			0.81			0.8936
AM Pk Hr at:	815												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	27	0	78	16	4	12	3	403	12	11	251	16	833
3:45 PM	18	1	42	15	3	5	8	334	10	22	259	16	733
4:00 PM	28	3	54	14	3	12	10	409	13	17	287	7	857
4:15 PM	22	3	54	12	3	3	6	374	11	15	256	10	769
4:30 PM	41	1	84	18	2	12	2	462	18	15	296	18	969
4:45 PM	19	1	54	12	5	7	6	374	17	20	264	15	794
5:00 PM	36	0	98	15	4	13	5	482	8	12	314	8	995
5:15 PM	25	3	44	15	6	13	10	406	17	16	298	9	862
5:30 PM	18	0	59	19	2	15	6	394	12	19	281	7	832
5:45 PM	23	1	36	13	3	7	5	347	8	14	266	10	733
6:00 PM	16	2	36	10	3	7	4	354	8	21	253	9	723
6:15 PM	18	0	38	13	1	9	2	332	8	13	221	14	669
Volumes	291	15	677	172	39	115	67	4671	142	195	3246	139	9769
Approach %	29.60	1.53	68.87	52.76	11.96	35.28	1.37	95.72	2.91	5.45	90.67	3.88	
App/Depart	983	/	221	326	/	376	4880	/	5520	3580	/	3652	
Peak Volumes	121	5	280	60	17	45	23	1724	60	63	1172	50	3620
Approach %	29.80	1.23	68.97	49.18	13.93	36.89	1.27	95.41	3.32	4.90	91.21	3.89	
Pk Hr FACTOR:	0.76			0.90			0.91			0.96			0.9095
PM Pk Hr at:	430												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 8

Intersection Location: El Camino Real & Palomar Airport Rd.

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El Camino Real at Palomar Airport Road

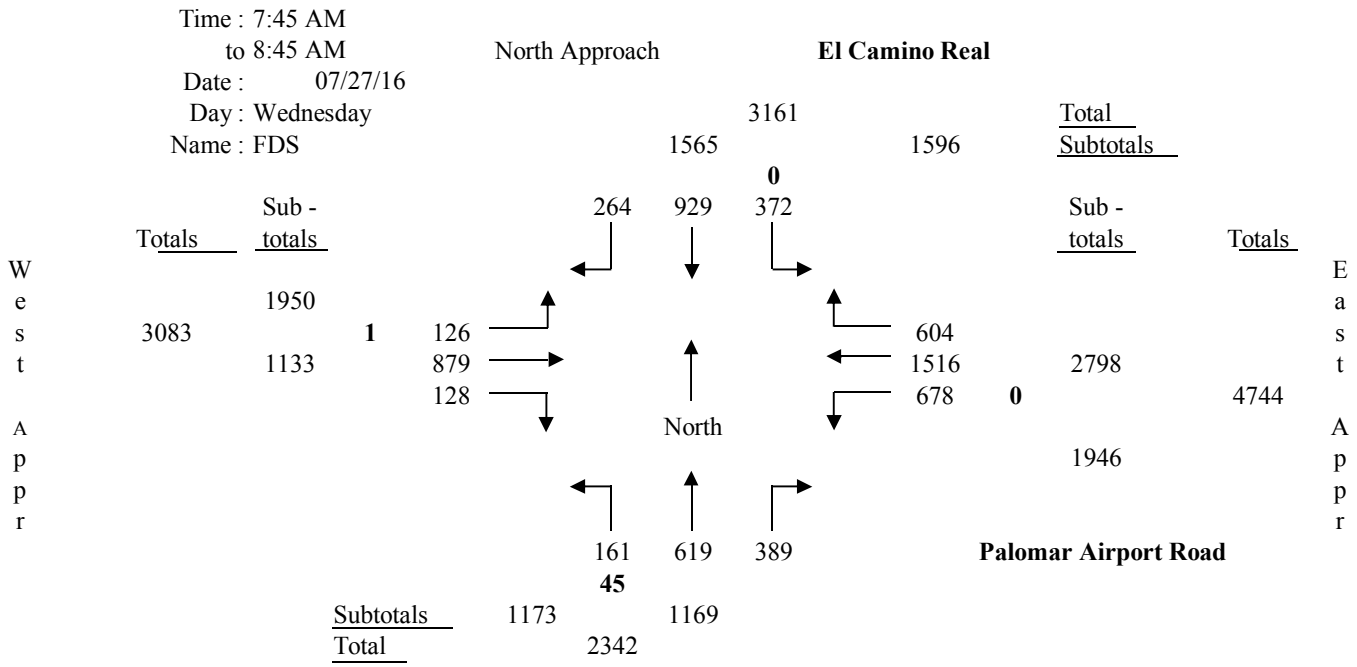
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			161	619	389	372	929	264	126	879	128	678	1516	604
Adjusted Hourly Volume			161	619	50	372	929	201	126	879	128	678	1516	604
Utilization Factor			0.04	0.10	0.01	0.10	0.15	0.11	0.04	0.15	0.07	0.19	0.25	0.17
Critical Factors				0.10		0.10				0.15		0.19		

ICU Ratio = 0.64 LOS = B

Turning Movements at Intersection of : **El Camino Real and Palomar Airport Road**

Time : 7:45 AM
to 8:45 AM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

El Camino Real at Palomar Airport Road

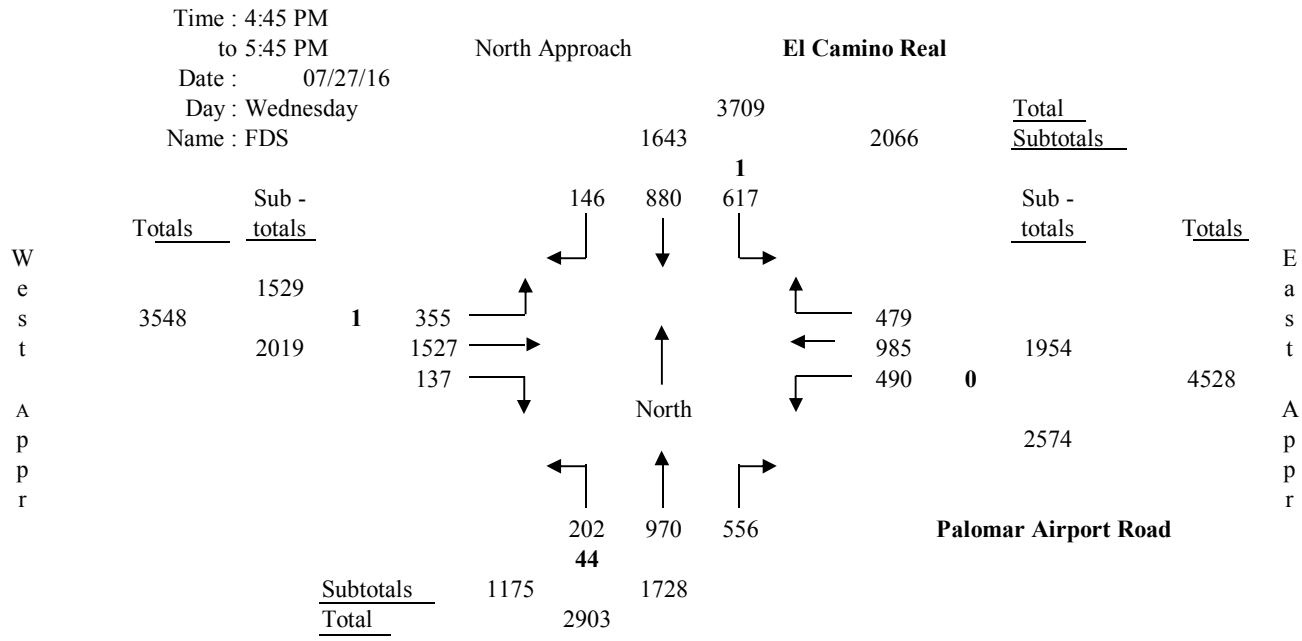
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	970	556	617	880	146	355	1527	137	490	985	479
Adjusted Hourly Volume			202	970	311	617	880	146	355	1527	137	490	985	479
Utilization Factor			0.06	0.16	0.09	0.17	0.15	0.08	0.10	0.25	0.08	0.14	0.16	0.13
Critical Factors				0.16		0.17				0.25		0.14		

ICU Ratio = 0.82 LOS = D

Turning Movements at Intersection of : **El Camino Real and Palomar Airport Road**

Time : 4:45 PM
to 5:45 PM
Date : 07/27/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	El Camino Real	DATE:	07/27/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	WEDNESDAY	PROJECT#	16-1256-008
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	2	2	3	1	2	3	1	2	3	2	
6:30 AM	14	59	50	42	91	40	19	124	14	85	299	73	910
6:45 AM	15	80	59	60	134	44	21	146	18	116	359	112	1164
7:00 AM	16	86	68	78	172	79	25	133	9	175	308	118	1267
7:15 AM	29	95	95	70	184	63	21	152	28	155	339	125	1356
7:30 AM	33	124	82	84	266	60	35	169	26	174	378	110	1541
7:45 AM	38	164	95	109	245	77	38	239	30	165	458	146	1804
8:00 AM	43	147	98	96	259	82	29	209	29	175	391	165	1723
8:15 AM	36	165	103	84	196	51	28	216	37	183	333	155	1587
8:30 AM	44	143	93	83	229	54	31	215	32	155	334	138	1551
8:45 AM	36	175	101	100	244	55	33	209	36	183	407	150	1729
9:00 AM	41	145	100	69	195	38	37	231	26	126	275	141	1424
9:15 AM	56	163	79	77	186	44	39	166	20	117	290	126	1363
Volumes	401	1546	1023	952	2401	687	356	2209	305	1809	4171	1559	17419
Approach %	13.50	52.05	34.44	23.56	59.43	17.00	12.40	76.97	10.63	24.00	55.33	20.68	
App/Depart	2970	/	3461	4040	/	4515	2870	/	4184	7539	/	5259	
Peak Volumes	161	619	389	372	929	264	126	879	128	678	1516	604	6665
Approach %	13.77	52.95	33.28	23.77	59.36	16.87	11.12	77.58	11.30	24.23	54.18	21.59	
Pk Hr FACTOR:	0.96			0.90			0.92			0.91			0.9236
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	45	151	107	136	194	40	79	396	24	113	220	91	1596
3:45 PM	45	189	121	130	183	30	70	336	35	118	233	90	1580
4:00 PM	51	180	120	148	179	34	68	346	29	116	243	111	1625
4:15 PM	61	227	117	136	167	23	55	356	27	119	221	105	1614
4:30 PM	60	193	145	139	183	44	78	378	34	124	234	117	1729
4:45 PM	50	215	132	149	225	45	80	383	30	126	225	99	1759
5:00 PM	60	231	149	161	234	34	104	421	36	106	257	144	1937
5:15 PM	44	252	135	160	248	39	106	359	40	145	253	128	1909
5:30 PM	48	272	140	147	173	28	65	364	31	113	250	108	1739
5:45 PM	64	267	123	117	165	31	59	347	24	112	202	88	1599
6:00 PM	59	225	97	116	145	36	53	331	20	101	209	93	1485
6:15 PM	51	212	98	112	122	21	50	305	25	82	189	83	1350
Volumes	638	2614	1484	1651	2218	405	867	4322	355	1375	2736	1257	19922
Approach %	13.47	55.19	31.33	38.63	51.90	9.48	15.64	77.96	6.40	25.61	50.97	23.42	
App/Depart	4736	/	4738	4274	/	3948	5544	/	7457	5368	/	3779	
Peak Volumes	202	970	556	617	880	146	355	1527	137	490	985	479	7344
Approach %	11.69	56.13	32.18	37.55	53.56	8.89	17.58	75.63	6.79	25.08	50.41	24.51	
Pk Hr FACTOR:	0.94			0.92			0.90			0.93			0.9479
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 19

Intersection Location: Palomar Airport Rd. & Loker Ave. (W)

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Palomar Airport Road at W. Loker Avenue/ Innovation Way

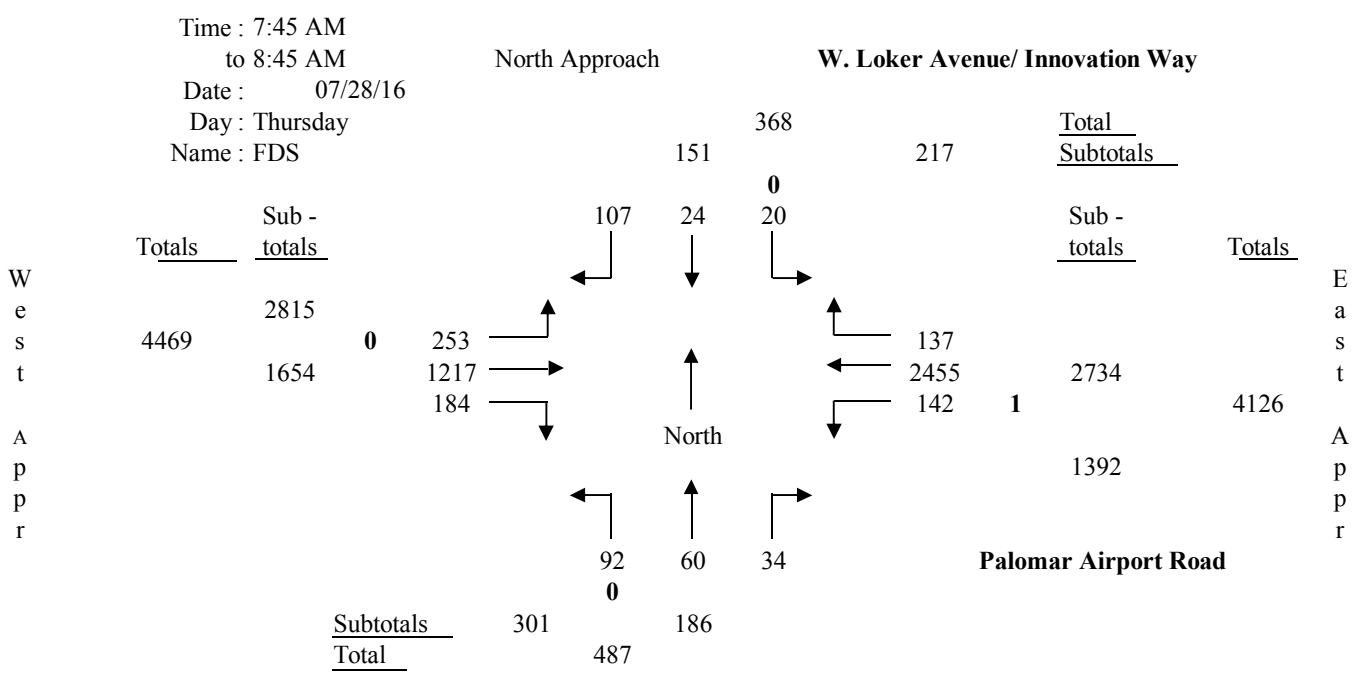
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			92	60	34	20	24	107	253	1217	184	142	2455	137
Adjusted Hourly Volume			92	60	34	20	24	107	253	1217	138	142	2592	0
Utilization Factor			0.05	0.03	0.02	0.01	0.01	0.06	0.14	0.20	0.08	0.08	0.43	0.00
Critical Factors			0.05					0.06	0.14				0.43	

ICU Ratio = 0.78 LOS = C

Turning Movements at Intersection of : **Palomar Airport Road and W. Loker Avenue/ Innovation Way**

Time : 7:45 AM
to 8:45 AM
Date : 07/28/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at W. Loker Avenue/ Innovation Way

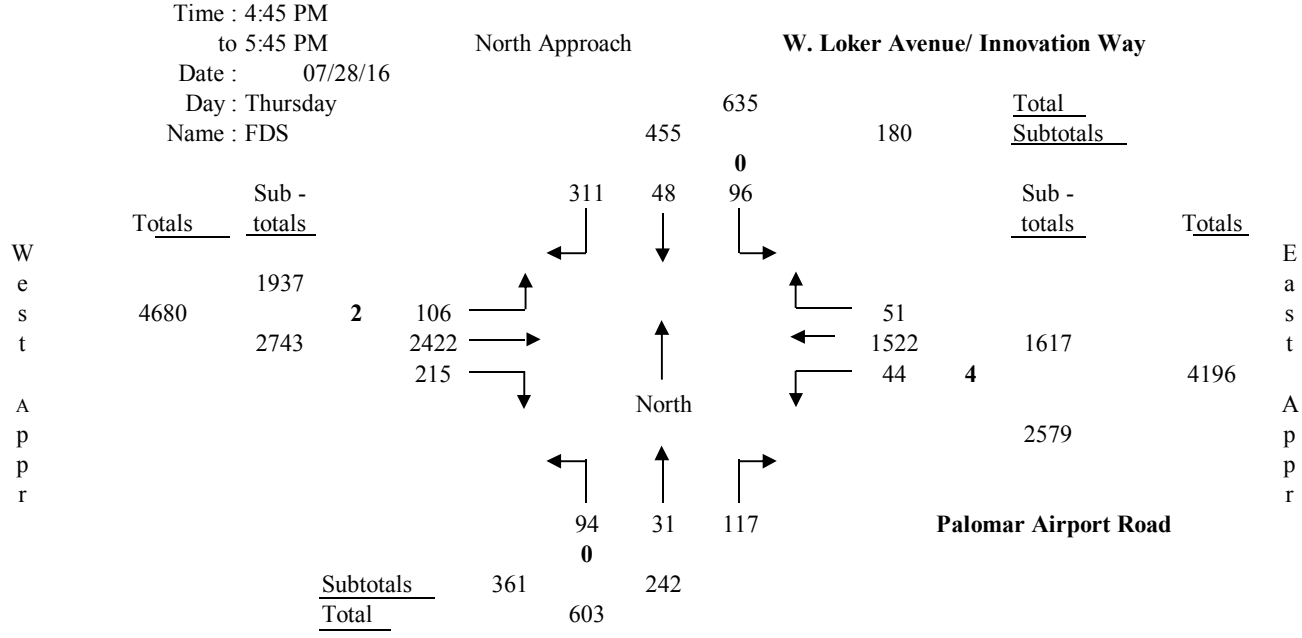
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			94	31	117	96	48	311	106	2422	215	44	1522	51
Adjusted Hourly Volume			94	31	117	96	48	311	106	2422	168	44	1573	0
Utilization Factor			0.05	0.02	0.07	0.05	0.02	0.17	0.06	0.40	0.09	0.02	0.26	0.00
Critical Factors			0.05					0.17		0.40		0.02		

ICU Ratio = 0.74 LOS = C

Turning Movements at Intersection of : **Palomar Airport Road and W. Loker Avenue/ Innovation Way**

Time : 4:45 PM
to 5:45 PM
Date : 07/28/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Loker Ave. West/	DATE:	07/28/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	THURSDAY	PROJECT#	16-1256-019
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	1	1	3	1	1	3	0	
6:30 AM	4	6	4	1	2	15	38	130	17	8	387	15	627
6:45 AM	14	12	8	2	3	16	43	213	21	11	509	22	874
7:00 AM	15	7	5	6	5	35	46	202	20	16	500	12	869
7:15 AM	12	11	6	4	6	19	48	229	29	14	561	17	956
7:30 AM	11	21	6	6	2	30	44	286	35	17	633	27	1118
7:45 AM	12	13	10	4	9	30	63	328	57	42	670	38	1276
8:00 AM	24	21	7	9	5	28	53	276	37	32	637	37	1166
8:15 AM	21	12	12	4	2	28	83	306	53	38	574	29	1162
8:30 AM	35	14	5	3	8	21	54	307	37	30	574	33	1121
8:45 AM	29	19	7	9	8	36	59	329	46	18	567	33	1160
9:00 AM	14	11	13	12	4	37	65	252	43	35	531	28	1045
9:15 AM	12	17	10	3	5	21	41	256	23	19	472	23	902
Volumes	203	164	93	63	59	316	637	3114	418	280	6615	314	12276
Approach %	44.13	35.65	20.22	14.38	13.47	72.15	15.28	74.69	10.03	3.88	91.76	4.36	
App/Depart	460	/	1115	438	/	757	4169	/	3270	7209	/	7134	
Peak Volumes	92	60	34	20	24	107	253	1217	184	142	2455	137	4725
Approach %	49.46	32.26	18.28	13.25	15.89	70.86	15.30	73.58	11.12	5.19	89.80	5.01	
Pk Hr FACTOR:	0.86			0.88			0.92			0.91			0.9257
AM Pk Hr at:	745												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	15	13	16	16	7	47	37	575	36	19	356	18	1155
3:45 PM	10	5	11	17	7	61	32	560	39	8	351	23	1124
4:00 PM	18	2	29	30	17	85	31	601	38	16	348	19	1234
4:15 PM	27	6	27	18	5	59	24	580	37	12	373	11	1179
4:30 PM	23	4	34	16	13	82	30	626	21	9	368	10	1236
4:45 PM	25	15	20	24	9	71	23	589	49	10	370	19	1224
5:00 PM	36	8	36	37	14	93	29	592	45	11	401	12	1314
5:15 PM	21	4	26	20	15	71	26	619	60	8	378	8	1256
5:30 PM	12	4	35	15	10	76	28	622	61	15	373	12	1263
5:45 PM	14	5	17	17	8	62	24	568	41	7	320	10	1093
6:00 PM	14	4	25	21	6	45	16	499	25	11	339	8	1013
6:15 PM	17	5	16	14	2	35	14	474	31	9	246	11	874
Volumes	232	75	292	245	113	787	314	6905	483	135	4223	161	13965
Approach %	38.73	12.52	48.75	21.40	9.87	68.73	4.08	89.65	6.27	2.99	93.45	3.56	
App/Depart	599	/	550	1145	/	731	7702	/	7442	4519	/	5242	
Peak Volumes	94	31	117	96	48	311	106	2422	215	44	1522	51	5057
Approach %	38.84	12.81	48.35	21.10	10.55	68.35	3.86	88.30	7.84	2.72	94.12	3.15	
Pk Hr FACTOR:	0.76			0.79			0.96			0.95			0.9621
PM Pk Hr at:	445												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 20

Intersection Location: Palomar Airport Rd. & El Fuerte St.

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Michael Baker
INTERNATIONAL

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Carlsbad, CA 92008
Address Line 3
Address Line 4

O: 760.476.9196
F: 760.476.9198
Email: someone@example.com

Palomar Airport Road at El Fuerte Street

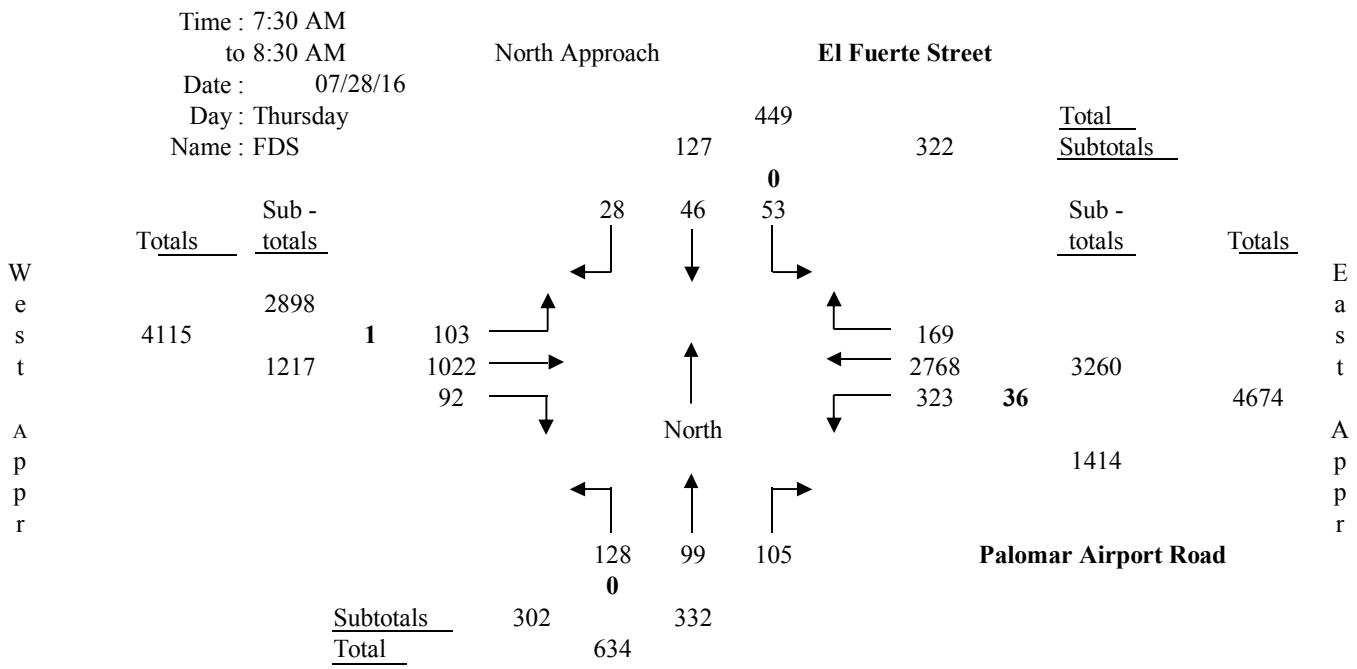
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			128	99	105	53	46	28	103	1022	92	323	2768	169
Adjusted Hourly Volume			128	99	105	53	74	0	103	1022	92	323	2937	0
Utilization Factor			0.04	0.05	0.06	0.01	0.02	0.00	0.03	0.17	0.05	0.09	0.49	0.00
Critical Factors					0.06	0.01			0.03				0.49	

ICU Ratio = 0.69 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and El Fuerte Street**

Time : 7:30 AM
to 8:30 AM
Date : 07/28/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at El Fuerte Street

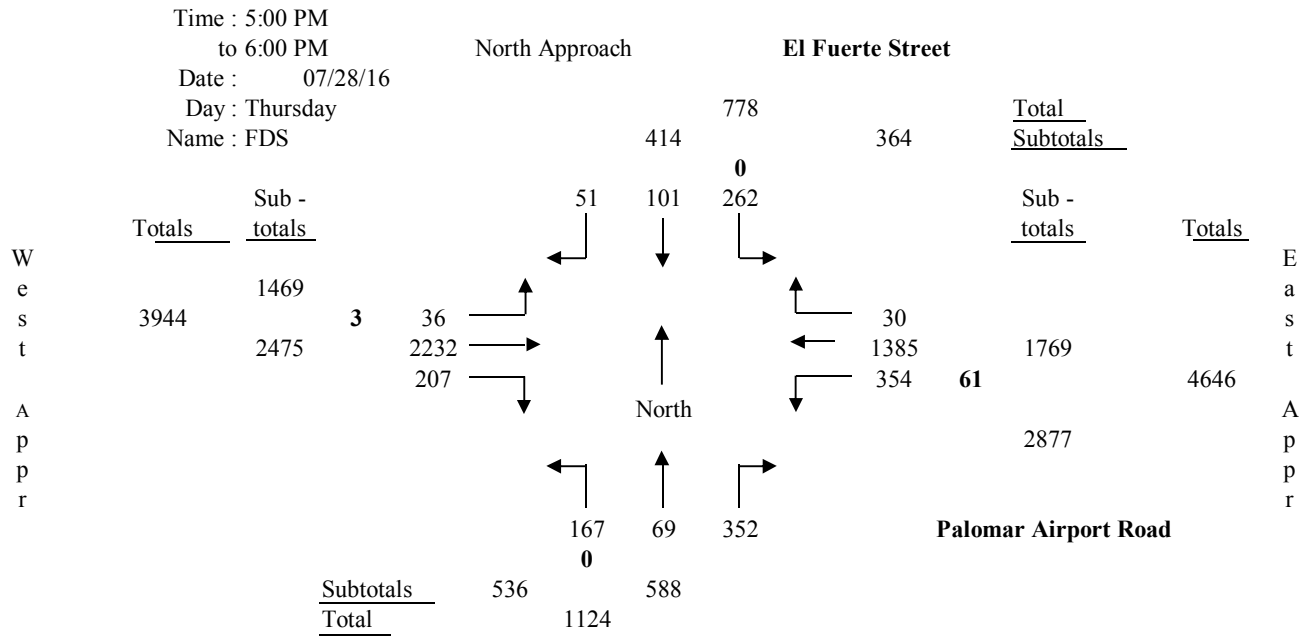
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 5:00 PM to 6:00 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	69	352	262	101	51	36	2232	207	354	1385	30
Adjusted Hourly Volume			167	69	352	262	152	0	36	2232	207	354	1415	0
Utilization Factor			0.05	0.03	0.20	0.07	0.04	0.00	0.01	0.37	0.12	0.10	0.24	0.00
Critical Factors					0.20	0.07				0.37		0.10		

ICU Ratio = 0.84 LOS = D

Turning Movements at Intersection of : **Palomar Airport Road and El Fuerte Street**

Time : 5:00 PM
to 6:00 PM
Date : 07/28/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
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N-S STREET:	El Fuerte St.	DATE:	07/28/2016	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	THURSDAY	PROJECT#	16-1256-020
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	2	3	1	2	3	0	
6:30 AM	16	5	9	5	3	3	10	135	5	27	457	34	709
6:45 AM	16	16	13	8	13	1	21	191	7	38	556	48	928
7:00 AM	23	8	25	12	20	9	16	188	10	52	521	34	918
7:15 AM	27	10	18	9	14	3	18	194	18	45	595	40	991
7:30 AM	24	21	20	14	5	5	20	235	15	78	705	37	1179
7:45 AM	44	31	23	11	16	7	31	292	20	79	731	53	1338
8:00 AM	21	15	25	12	14	9	25	220	28	78	708	40	1195
8:15 AM	39	32	37	16	11	7	27	275	29	88	624	39	1224
8:30 AM	32	35	27	6	9	5	17	262	29	90	630	23	1165
8:45 AM	38	29	39	8	17	6	20	279	43	88	617	23	1207
9:00 AM	37	16	42	10	16	5	23	229	24	74	533	24	1033
9:15 AM	26	19	33	7	9	9	18	215	26	70	479	21	932
Volumes	343	237	311	118	147	69	246	2715	254	807	7156	416	12819
Approach %	38.50	26.60	34.90	35.33	44.01	20.66	7.65	84.45	7.90	9.63	85.40	4.96	
App/Depart	891	/	899	334	/	1208	3215	/	3144	8379	/	7568	
Peak Volumes	128	99	105	53	46	28	103	1022	92	323	2768	169	4936
Approach %	38.55	29.82	31.63	41.73	36.22	22.05	8.46	83.98	7.56	9.91	84.91	5.18	
Pk Hr FACTOR:	0.77			0.91			0.89			0.94			0.9223
AM Pk Hr at:	730												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	33	11	75	72	18	8	4	521	31	50	329	11	1163
3:45 PM	42	11	59	34	23	7	8	497	55	73	334	7	1150
4:00 PM	36	12	70	74	27	16	6	531	50	84	355	10	1271
4:15 PM	38	12	82	52	24	20	14	532	52	74	311	5	1216
4:30 PM	47	13	92	42	23	7	5	546	47	82	370	9	1283
4:45 PM	35	10	68	60	31	13	11	536	37	92	329	8	1230
5:00 PM	41	19	99	97	35	15	9	496	40	108	383	9	1351
5:15 PM	46	17	93	51	22	17	6	566	48	96	343	7	1312
5:30 PM	41	18	76	69	24	12	10	609	45	78	343	11	1336
5:45 PM	39	15	84	45	20	7	11	561	74	72	316	3	1247
6:00 PM	62	7	76	39	23	2	2	475	40	73	287	5	1091
6:15 PM	35	9	75	25	13	3	5	433	46	71	254	3	972
Volumes	495	154	949	660	283	127	91	6303	565	953	3954	88	14622
Approach %	30.98	9.64	59.39	61.68	26.45	11.87	1.31	90.57	8.12	19.08	79.16	1.76	
App/Depart	1598	/	333	1070	/	1801	6959	/	7912	4995	/	4576	
Peak Volumes	167	69	352	262	101	51	36	2232	207	354	1385	30	5246
Approach %	28.40	11.73	59.86	63.29	24.40	12.32	1.45	90.18	8.36	20.01	78.29	1.70	
Pk Hr FACTOR:	0.92			0.70			0.93			0.88			0.9708
PM Pk Hr at:	500												

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 21

Intersection Location: Palomar Airport Rd. & Melrose Dr.

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Palomar Airport Road at Melrose Drive

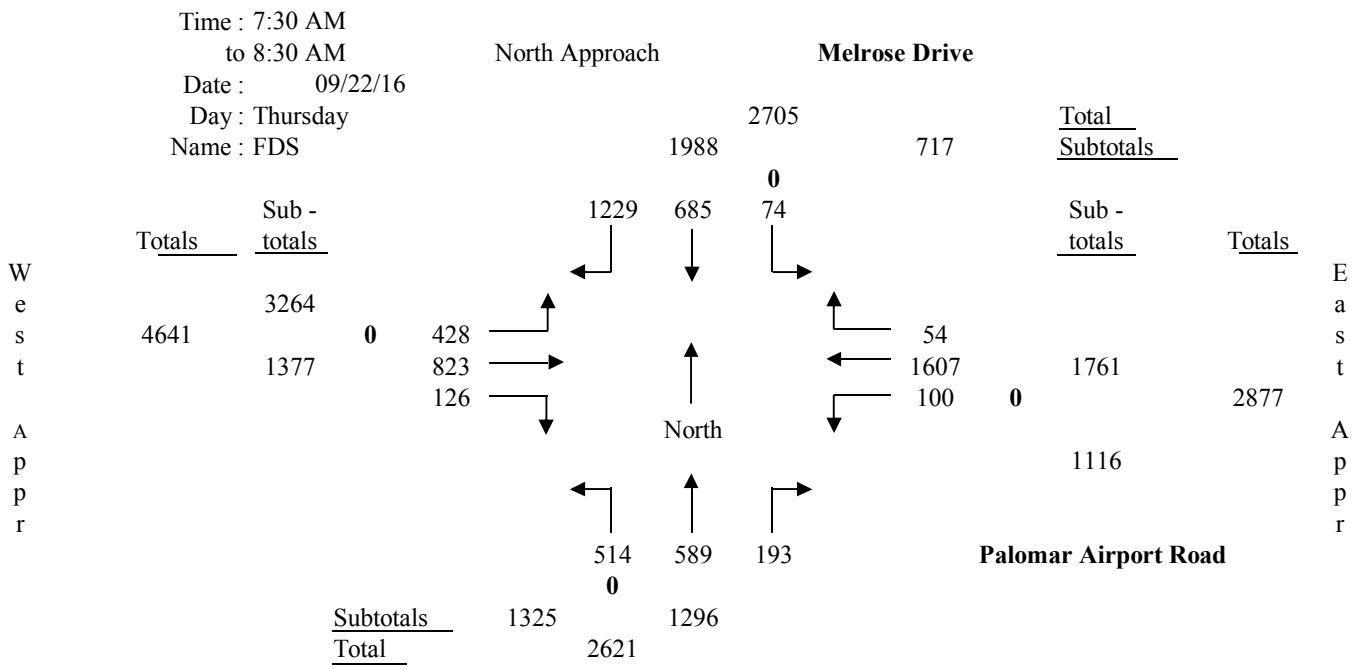
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			514	589	193	74	685	1229	428	823	126	100	1607	54
Adjusted Hourly Volume			514	0	143	74	685	955	428	823	126	100	1607	54
Utilization Factor			0.14	0.00	0.08	0.02	0.17	0.27	0.12	0.14	0.07	0.03	0.27	0.03
Critical Factors			0.14					0.27	0.12				0.27	

ICU Ratio = 0.90 LOS = D

Turning Movements at Intersection of : **Palomar Airport Road and Melrose Drive**

Time : 7:30 AM
to 8:30 AM
Date : 09/22/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

Palomar Airport Road at Melrose Drive

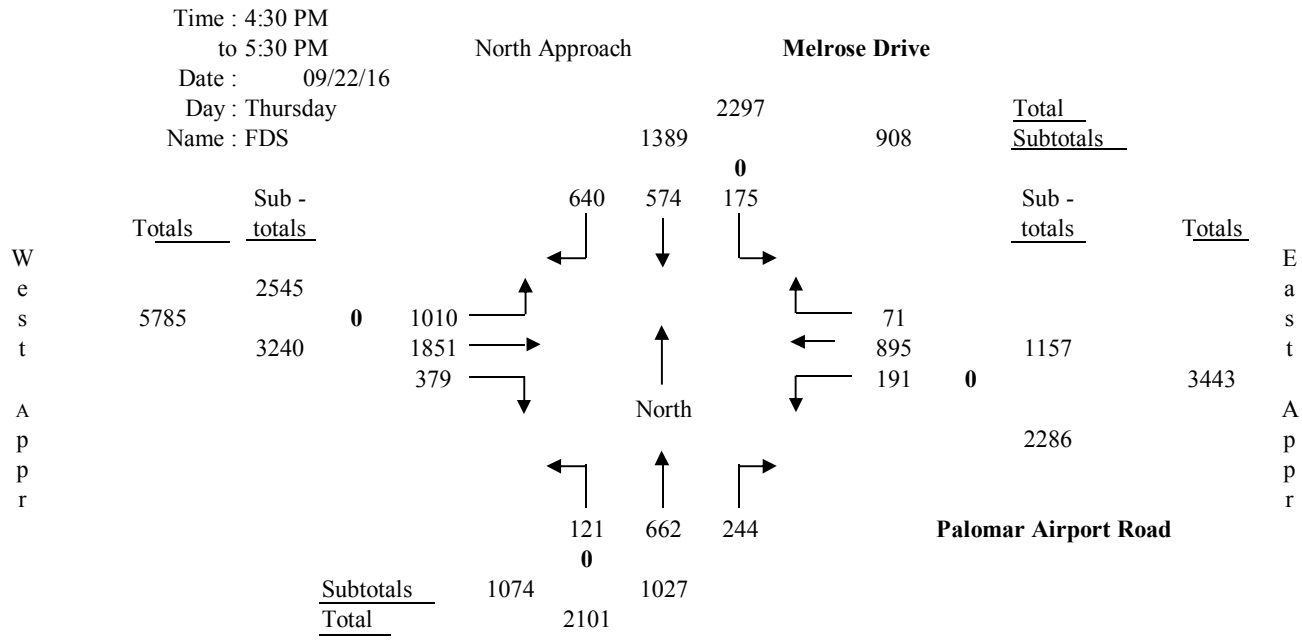
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	662	244	175	574	640	1010	1851	379	191	895	71
Adjusted Hourly Volume			121	662	0	175	574	75	1010	1851	379	191	895	71
Utilization Factor			0.03	0.08	0.00	0.05	0.14	0.02	0.28	0.31	0.21	0.05	0.15	0.04
Critical Factors			0.03				0.14		0.28				0.15	

ICU Ratio = 0.70 LOS = B

Turning Movements at Intersection of : **Palomar Airport Road and Melrose Drive**

Time : 4:30 PM
to 5:30 PM
Date : 09/22/16
Day : Thursday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Melrose Dr.	DATE:	09/22/16	LOCATION:	Carlsbad
E-W STREET:	Palomar Airport Rd.	DAY:	THURSDAY	PROJECT#	16-1256-021
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	4	1	2	3	2	2	3	1	2	3	1	
6:30 AM	71	59	22	6	142	217	59	103	22	10	284	9	1004
6:45 AM	86	72	25	10	147	236	75	104	28	22	344	13	1162
7:00 AM	88	78	39	19	135	249	78	146	20	22	356	8	1238
7:15 AM	100	102	57	14	168	271	89	191	27	16	372	10	1417
7:30 AM	123	146	42	20	183	330	89	180	31	28	410	7	1589
7:45 AM	135	150	50	14	166	308	131	227	37	27	394	16	1655
8:00 AM	116	152	52	19	180	317	99	202	34	24	409	6	1610
8:15 AM	140	141	49	21	156	274	109	214	24	21	394	25	1568
8:30 AM	122	130	48	24	152	285	101	173	26	23	339	9	1432
8:45 AM	131	105	40	20	129	240	75	153	19	20	346	10	1288
9:00 AM	79	83	28	10	98	173	96	163	24	18	246	10	1028
9:15 AM	82	71	23	11	93	180	90	198	28	9	233	15	1033
Volumes	1273	1289	475	188	1749	3080	1091	2054	320	240	4127	138	16024
Approach %	41.92	42.44	15.64	3.75	34.86	61.39	31.49	59.28	9.24	5.33	91.61	3.06	
App/Depart	3037	/	2518	5017	/	2309	3465	/	2717	4505	/	8480	
Peak Volumes	514	589	193	74	685	1229	428	823	126	100	1607	54	6422
Approach %	39.66	45.45	14.89	3.72	34.46	61.82	31.08	59.77	9.15	5.68	91.25	3.07	
Pk Hr FACTOR:	0.97			0.93			0.87			0.99			0.9701
AM Pk Hr at:	730												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	65	160	42	26	108	154	198	456	70	38	231	15	1563
3:45 PM	27	129	47	31	117	141	182	379	68	33	235	19	1408
4:00 PM	35	148	51	24	107	141	232	474	89	37	213	27	1578
4:15 PM	21	124	60	43	137	137	202	397	95	49	193	14	1472
4:30 PM	27	173	60	41	126	160	248	463	79	39	222	24	1662
4:45 PM	29	166	49	37	132	167	271	476	118	44	240	16	1745
5:00 PM	31	158	66	53	162	187	259	476	90	62	254	11	1809
5:15 PM	34	165	69	44	154	126	232	436	92	46	179	20	1597
5:30 PM	26	158	57	21	109	120	251	460	128	57	215	10	1612
5:45 PM	26	129	45	28	118	125	185	304	100	48	193	11	1312
6:00 PM	33	123	59	19	80	106	205	377	85	50	174	9	1320
6:15 PM	20	118	56	23	71	88	201	321	76	36	149	12	1171
Volumes	374	1751	661	390	1421	1652	2666	5019	1090	539	2498	188	18249
Approach %	13.42	62.85	23.73	11.26	41.03	47.70	30.38	57.20	12.42	16.71	77.46	5.83	
App/Depart	2786	/	4605	3463	/	3050	8775	/	6070	3225	/	4524	
Peak Volumes	121	662	244	175	574	640	1010	1851	379	191	895	71	6813
Approach %	11.78	64.46	23.76	12.60	41.32	46.08	31.17	57.13	11.70	16.51	77.36	6.14	
Pk Hr FACTOR:	0.96			0.86			0.94			0.88			0.9415
PM Pk Hr at:	430												

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Town Garden Rd. @ El Camino Real

Date of Count: *Wednesday, June 21, 2017*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *17-0703*

LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

AVC

Location: Town Garden Rd. @ El Camino Real

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	27	333	8	4	6	16	7	169	17	5	0	12	604
7:15 AM	26	357	20	9	8	22	17	199	21	8	0	6	693
7:30 AM	25	384	33	12	10	15	16	267	28	10	1	14	815
7:45 AM	28	289	32	16	14	29	20	240	32	12	2	17	731
8:00 AM	16	351	34	7	11	37	19	287	47	10	5	12	836
8:15 AM	15	329	21	16	6	24	10	263	39	7	7	9	746
8:30 AM	19	284	26	13	11	33	14	273	34	8	3	10	728
8:45 AM	17	286	40	17	18	36	19	244	49	5	2	7	740
Total	173	2,613	214	94	84	212	122	1,942	267	65	20	87	5,893

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.94**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	84	1,353	120	51	41	105	65	1,057	146	39	15	52	3,128
PHF	0.75	0.88	0.88	0.80	0.73	0.71	0.81	0.92	0.78	0.81	0.54	0.76	0.94
Movement PHF		0.88			0.83			0.90			0.85		0.94

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	15	435	44	23	4	45	21	291	12	23	4	50	967
4:15 PM	14	443	51	18	6	38	33	308	17	15	3	24	970
4:30 PM	10	390	36	23	8	46	26	315	17	29	4	40	944
4:45 PM	14	389	61	21	13	42	19	329	11	20	6	23	948
5:00 PM	9	399	60	15	11	55	34	277	14	38	5	47	964
5:15 PM	14	370	80	21	6	55	42	306	21	26	3	45	989
5:30 PM	23	388	68	7	8	45	35	263	19	29	7	26	918
5:45 PM	19	359	59	18	5	42	35	248	9	25	9	30	858
Total	118	3173	459	146	61	368	245	2,337	120	205	41	285	7,558

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	47	1548	237	80	38	198	121	1227	63	113	18	155	3845
PHF	0.84	0.97	0.741	0.87	0.731	0.9	0.72	0.932	0.75	0.743	0.75	0.824	0.97
Movement PHF		0.98			0.96			0.96			0.79		0.97

Turn Count Summary

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Camino Vida Roble @ El Camino Real

Date of Count: *Wednesday, June 21, 2017*

Analysts: *LV/CD*

Weather: *Sunny*

AVC Proj No: *17-0703*

LINSCOTT LAW & GREENSPAN engineers

Vehicular Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: Camino Vida Roble @ El Camino Real

AM Period (7:00 AM - 9:00 AM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
7:00 AM	31	326	1	2	0	0	0	217	45	13	0	7	642
7:15 AM	38	310	2	0	0	1	0	269	72	16	0	6	714
7:30 AM	48	368	1	2	2	2	0	327	85	22	0	9	866
7:45 AM	76	297	4	4	0	0	1	325	110	19	0	11	847
8:00 AM	63	337	5	1	1	0	0	365	93	25	1	18	909
8:15 AM	56	305	7	1	1	1	1	345	104	16	0	15	852
8:30 AM	41	286	13	2	1	1	0	352	77	28	1	12	814
8:45 AM	65	256	15	1	0	1	3	336	124	17	3	20	841
Total	418	2,485	48	13	5	6	5	2,536	710	156	5	98	6,485

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **0.96**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	243	1,307	17	8	4	3	2	1,362	392	82	1	53	3,474
PHF	0.80	0.89	0.61	0.50	0.50	0.38	0.50	0.93	0.89	0.82	0.25	0.74	0.96
Movement PHF		0.94			0.63			0.96			0.77		0.96

PM Period (4:00 PM - 6:00 PM)													
	Southbound			Westbound			Northbound			Eastbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	TOTAL
4:00 PM	21	431	7	0	0	1	0	263	22	73	0	46	864
4:15 PM	26	416	12	1	2	0	4	296	25	69	4	48	903
4:30 PM	27	387	4	4	1	0	0	339	53	109	1	59	984
4:45 PM	31	380	9	0	0	0	0	344	35	96	0	58	953
5:00 PM	16	423	6	0	0	1	0	299	38	130	1	76	990
5:15 PM	20	434	4	1	1	0	2	272	30	95	1	71	931
5:30 PM	18	393	2	2	0	3	0	246	19	98	4	60	845
5:45 PM	19	354	4	1	0	2	0	260	36	85	1	35	797
Total	178	3218	48	9	4	7	6	2,319	258	755	12	453	7,267

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.97**

	Southbound			Westbound			Northbound			Eastbound			TOTAL
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
Volume	94	1624	23	5	2	1	2	1254	156	430	3	264	3858
PHF	0.76	0.935	0.639	0.313	0.5	0.25	0.25	0.911	0.736	0.827	0.75	0.868	0.97
Movement PHF		0.95			0.40			0.90			0.84		0.97

City of Carlsbad
Traffic Monitoring Program
Summer 2016

Intersection Analysis Summary

Intersection Number: 10

Intersection Location: El Camino Real & Poinsettia Ln.

Contents:

A.M. Peak Hour ICU Analysis and Turn Movement Diagram
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P.M. Peak Hour ICU Analysis and Turn Movement Diagram
Page 2

A.M./P.M. Peak Period Intersection Turning Movement Count Data
Page 3

Michael Baker
INTERNATIONAL

5050 Avenida Encinias, Ste 260
Carlsbad, CA 92008
Address Line 3
Address Line 4

O: 760.476.9196
F: 760.476.9198
Email: someone@example.com

El Camino Real at Poinsettia Lane

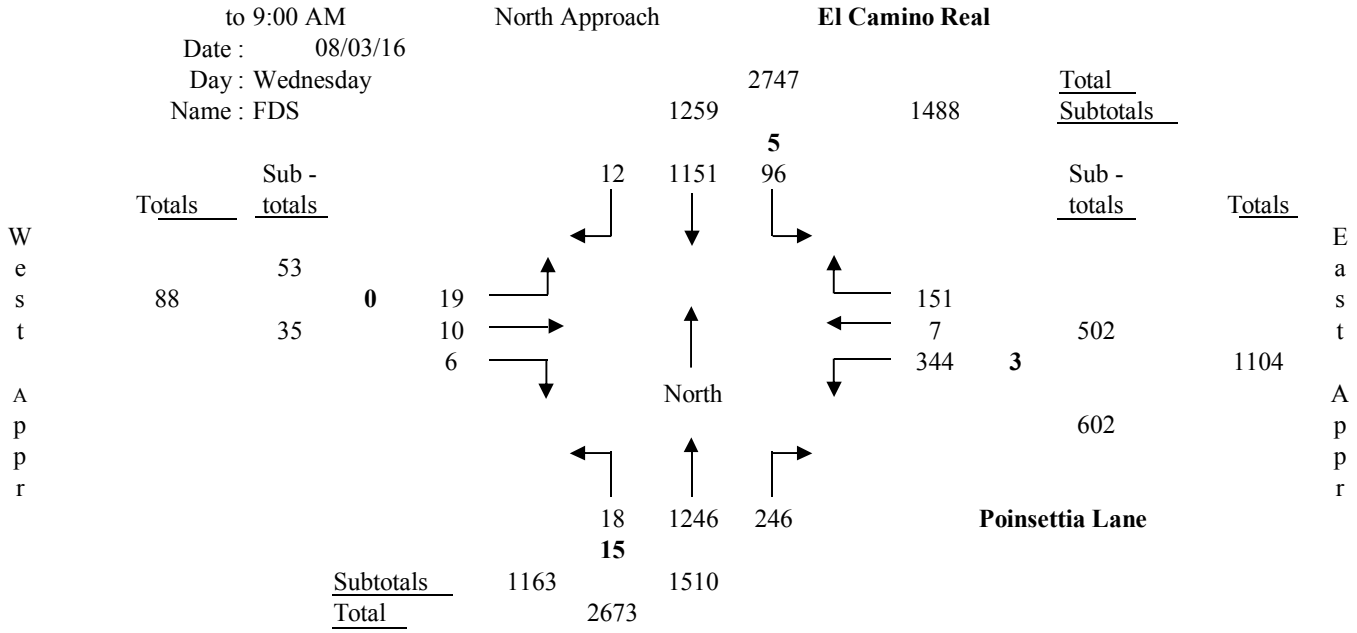
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:00 AM to 9:00 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1	1		1	1
		5		1			1	1						
		6			1									
	Outside Free-flow	7												
Lane Settings			2	3	1	2	3	0	2	2	0	2	1	1
Capacity			3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			18	1246	246	96	1151	12	19	10	6	344	7	151
Adjusted Hourly Volume			18	1246	246	96	1163	0	19	16	0	344	0	158
Utilization Factor			0.01	0.21	0.14	0.03	0.19	0.00	0.01	0.00	0.00	0.10	0.00	0.09
Critical Factors				0.21		0.03				0.00		0.10		

ICU Ratio = 0.44 LOS = A

Turning Movements at Intersection of : **El Camino Real and Poinsettia Lane**

Time : 8:00 AM
to 9:00 AM
Date : 08/03/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

El Camino Real at Poinsettia Lane

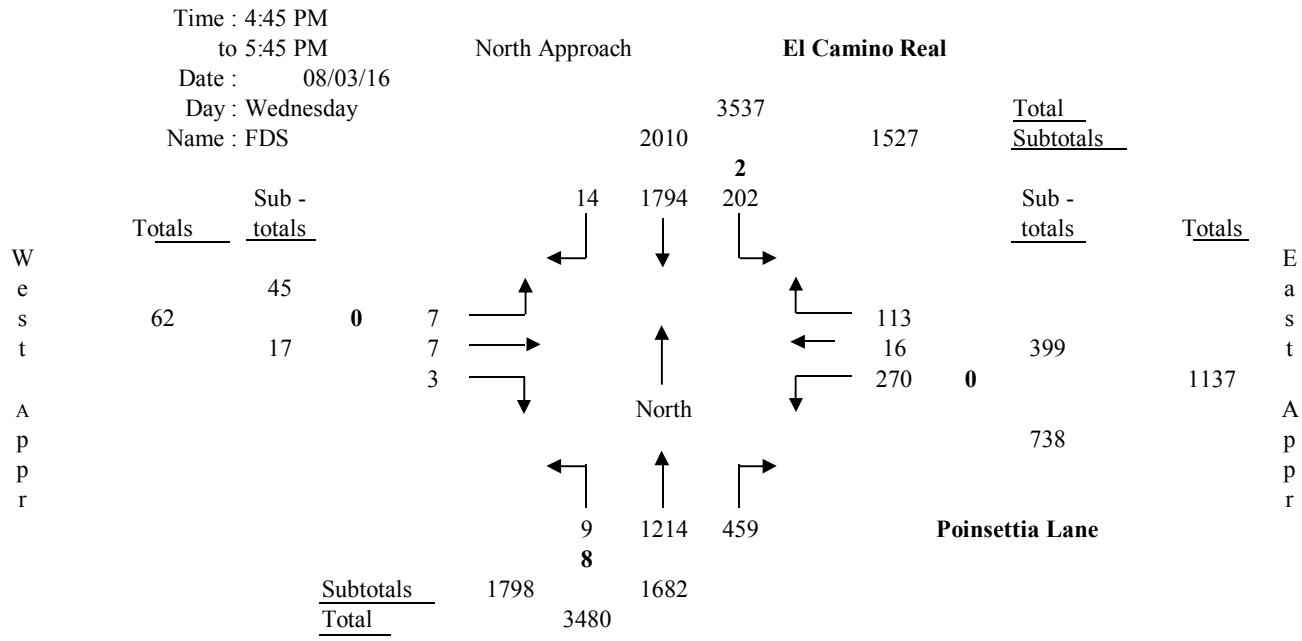
Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1	1		1	1
		5		1			1	1						
		6			1									
	Outside	7												
	Free-flow													
Lane Settings			2	3	1	2	3	0	2	2	0	2	1	1
Capacity			3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			9	1214	459	202	1794	14	7	7	3	270	16	113
Adjusted Hourly Volume			9	1214	459	202	1808	0	7	7	10	270	0	129
Utilization Factor			0.00	0.20	0.26	0.06	0.30	0.00	0.00	0.00	0.00	0.08	0.00	0.07
Critical Factors					0.26	0.06				0.00		0.08		

ICU Ratio = 0.50 LOS = A

Turning Movements at Intersection of : **El Camino Real and Poinsettia Lane**

Time : 4:45 PM
to 5:45 PM
Date : 08/03/16
Day : Wednesday
Name : FDS



Note : Left-turn volumes include U-turns. U-turns in bold.

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	El Camino Real	DATE:	08/03/16	LOCATION:	Carlsbad
E-W STREET:	Poinsettia Ln.	DAY:	WEDNESDAY	PROJECT#	16-1256-010
CONTROL:	Signal				

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	0	2	2	0	2	2	0	
6:30 AM	2	126	19	8	111	1	4	1	0	51	0	8	331
6:45 AM	0	168	30	9	167	0	2	0	0	67	0	20	463
7:00 AM	3	146	29	7	215	0	1	0	0	75	0	21	497
7:15 AM	5	225	44	6	289	1	1	2	3	80	1	28	685
7:30 AM	8	292	46	8	267	1	4	2	3	79	2	31	743
7:45 AM	2	370	62	8	310	1	2	1	4	100	2	36	898
8:00 AM	4	288	60	25	276	4	3	1	1	112	2	34	810
8:15 AM	3	306	55	14	284	2	2	3	3	85	2	36	795
8:30 AM	5	294	54	21	295	2	7	2	0	75	2	32	789
8:45 AM	6	358	77	36	296	4	7	4	2	72	1	49	912
9:00 AM	3	308	48	41	254	2	2	3	3	61	5	45	775
9:15 AM	4	279	46	22	245	4	4	4	0	48	1	45	702
Volumes	45	3160	570	205	3009	22	39	23	19	905	18	385	8400
Approach %	1.19	83.71	15.10	6.33	92.99	0.68	48.15	28.40	23.46	69.19	1.38	29.43	
App/Depart	3775	/	3584	3236	/	3933	81	/	798	1308	/	85	
Peak Volumes	18	1246	246	96	1151	12	19	10	6	344	7	151	3306
Approach %	1.19	82.52	16.29	7.63	91.42	0.95	54.29	28.57	17.14	68.53	1.39	30.08	
Pk Hr FACTOR:	0.86			0.94			0.67			0.85			0.9063
AM Pk Hr at:	800												

PM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
3:30 PM	4	282	81	32	312	0	4	1	1	47	4	32	800
3:45 PM	2	272	80	34	384	3	1	1	2	54	2	29	864
4:00 PM	2	256	84	24	333	3	1	1	1	62	2	28	797
4:15 PM	5	275	84	37	429	5	4	3	0	53	3	29	927
4:30 PM	4	295	93	43	336	2	2	0	1	57	1	25	859
4:45 PM	5	302	96	47	429	4	2	1	0	69	4	26	985
5:00 PM	1	323	121	45	457	3	1	2	1	77	4	32	1067
5:15 PM	3	325	133	53	473	5	2	2	1	72	5	28	1102
5:30 PM	0	264	109	57	435	2	2	2	1	52	3	27	954
5:45 PM	1	287	124	36	311	4	3	0	1	51	4	22	844
6:00 PM	2	257	85	42	356	6	2	1	2	54	3	22	832
6:15 PM	4	278	94	25	271	4	2	0	2	49	2	20	751
Volumes	33	3416	1184	475	4526	41	26	14	13	697	37	320	10782
Approach %	0.71	73.73	25.56	9.42	89.77	0.81	49.06	26.42	24.53	66.13	3.51	30.36	
App/Depart	4633	/	3762	5042	/	5236	53	/	1673	1054	/	111	
Peak Volumes	9	1214	459	202	1794	14	7	7	3	270	16	113	4108
Approach %	0.54	72.18	27.29	10.05	89.25	0.70	41.18	41.18	17.65	67.67	4.01	28.32	
Pk Hr FACTOR:	0.91			0.95			0.85			0.88			0.9319
PM Pk Hr at:	445												

APPENDIX B

ICU & HCM INTERSECTION ANALYSIS CALCULATION METHODOLOGIES

The ICU is shown for unsignalized intersections because it represents the potential capacity for the intersection if it were to be signalized.

ICU Level of Service

The ICU Level of Service (LOS) gives insight into how an intersection is functioning and how much extra capacity is available to handle traffic fluctuations and incidents. ICU is not a value that can be measured with a stopwatch, but it does give a good reading on the conditions that can be expected at the intersection. Full details of the ICU LOS can be found in the topic, Intersection Capacity (ICU) Report.

Letters A to H are assigned to the intersection based on the Intersection Capacity Utilization using **Table 4-3**. Note that the ICU 2003 includes additional levels past F to further differentiate congested operation.

Table 4-3 Level of Service Criteria for ICU Analysis

ICU	Level of Service
0 to 55%	A
>55% to 64%	B
>64% to 73%	C
>73% to 82%	D
>82% to 91%	E
>91% to 100%	F
>100% to 109%	G
>109%	H

Offset Settings

The settings in the **Offset** settings box specify the phase the offset is reference to and the value of the current offset. Each intersection is given one offset that can be referenced to the beginning of green, yellow or red of the phase. The offset value represents the number of seconds that the reference phase lags the master reference (or arbitrary reference if no master is specified). The master reference synchronizes the intersections sharing a common cycle length to provide a coordinated system.

2010 HIGHWAY CAPACITY MANUAL LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

In the 2010 Highway Capacity Manual (HCM), Level of Service for signalized intersections is defined in terms of delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Specifically, Level of Service criteria are stated in terms of the average control delay per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Delay is a complex measure, and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group or approach in question.

LEVEL OF SERVICE	CONTROLLED DELAY PER VEHICLE (SEC)		
A		≤	10.0
B	10.1	to	20.0
C	20.1	to	35.0
D	35.1	to	55.0
E	55.1	to	80.0
F		>	80.0

Level of Service A describes operations with very low delay, (i.e. less than 10.0 seconds per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level of Service B describes operations with delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Level of Service C describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in the level. The number of vehicles stopping is significant at this level, although many still pass through the intersections without stopping.

Level of Service D describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At Level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service E describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level of Service F describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e. when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

2010 HIGHWAY CAPACITY MANUAL LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

In the 2010 Highway Capacity Manual (HCM), Level of Service for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. Level of Service is not defined for the intersection as a whole. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The criteria are given in the following the table, and are based on the average control delay for any particular minor movement.

LEVEL OF SERVICE	AVERAGE CONTROL DELAY SEC/VEH			EXPECTED DELAY TO MINOR STREET TRAFFIC
A	0.0	≤	10.0	Little or no delay
B	10.1	to	15.0	Short traffic delays
C	15.1	to	25.0	Average traffic delays
D	25.1	to	35.0	Long traffic delays
E	35.1	to	50.0	Very long traffic delays
F		>	50.0	Severe congestion

Level of Service F exists when there are insufficient gaps of suitable size to allow a side street demand to safely cross through a major street traffic stream. This Level of Service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches. The method, however, is based on a constant critical gap size; that is, the critical gap remains constant no matter how long the side-street motorist waits. LOS F may also appear in the form on side-street vehicles selecting smaller-than-usual gaps. In such cases, safety may be a problem, and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior, which are more difficult to observe in the field than queuing.

In most cases at Two-Way Stop Controlled (TWSC) intersections, the critical movement is the minor-street left-turn movement. As such, the minor-street left-turn movement can generally be considered the primary factor affecting overall intersection performance. The lower threshold for LOS F is set at 50 seconds of delay per vehicle. There are many instances, particularly in urban areas, in which the delay equations will predict delays of 50 seconds (LOS F) or more for minor-street movements under very low volume conditions on the minor street (less than 25 vehicle/hour). Since the first term of the equation is a function only of the capacity, the LOS F threshold of 50 sec/vehicle is reached with a movement capacity of approximately 85 vehicle/hour or less.

This procedure assumes random arrivals on the major street. For a typical four-lane arterial with average daily traffic volumes in the range of 15,000 to 20,000 vehicles per day (peak hour, 1,500 to 2,000 vehicle/hour), the delay equation used in the TWSC capacity analysis procedure will predict 50 seconds of delay or more (LOS F) for many urban TWSC intersections that allow minor-street left-turn movements. **The LOS F threshold will be reached regardless of the volume of minor-street left-turn traffic.** Not-withstanding this fact, most low-volume minor-street approaches would not meet any of the volume or delay warrants for signalization of the *Manual on Uniform Traffic Control Devices* (MUTCD) since the warrants define an asymptote at 100 vehicle/hour on the minor approach. As a result, many public agencies that use the HCM Level of Service thresholds to determine the design adequacy of TWSC intersections may be forced to eliminate the minor-street left-turn movement, even when the movement may not present any operational problem, such as the formation of long queues on the minor street or driveway approach.

APPENDIX C
EXISTING INTERSECTION ANALYSIS CALCULATION WORKSHEETS

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	0	0	1	1	1	1	1	2	0
Capacity			3600	0	0	0	0	1800	1800	2000	1800	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			160	2	12	0	3	5	4	177	528	59	732	7
Adjusted Hourly Volume			174	0	0	0	0	8	4	177	528	59	739	0
Utilization Factor			0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.29	0.03	0.18	0.00
Critical Factors			0.05					0.00			0.29	0.03		

ICU Ratio = 0.47 LOS = A

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	1	0	0	1	2	0	1	2	0
Capacity			3600	0	0	1800	0	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			575	3	78	4	3	1	4	871	203	11	384	4
Adjusted Hourly Volume			656	0	0	8	3	0	4	871	203	11	388	0
Utilization Factor			0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.10	0.00
Critical Factors			0.18			0.00				0.22		0.01		

ICU Ratio = 0.51 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			87	14	9	33	29	36	19	1924	536	124	548	16
Adjusted Hourly Volume			87	23	0	33	29	0	19	1924	536	124	548	16
Utilization Factor			0.02	0.01	0.00	0.01	0.01	0.00	0.01	0.32	0.30	0.07	0.09	0.01
Critical Factors			0.02				0.01			0.32		0.07		

ICU Ratio = 0.52 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			539	35	24	20	13	39	45	993	120	21	1944	32
Adjusted Hourly Volume			539	59	0	20	13	0	45	993	120	21	1944	32
Utilization Factor			0.15	0.01	0.00	0.01	0.01	0.00	0.03	0.17	0.07	0.01	0.32	0.02
Critical Factors			0.15				0.01		0.03				0.32	

ICU Ratio = 0.61 LOS = B

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	1	2	0	1	2	0
Capacity			3600	2000	1800	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			194	168	272	167	305	76	41	368	119	141	354	46
Adjusted Hourly Volume			194	440	272	167	381	0	41	368	119	141	400	0
Utilization Factor			0.05	0.22	0.15	0.05	0.10	0.00	0.02	0.09	0.00	0.08	0.10	0.00
Critical Factors				0.22		0.05				0.09		0.08		

ICU Ratio = 0.54 LOS = A

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	2	0	2	2	0	1	2	0	1	2	0
Capacity			3600	4000	0	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			132	288	109	17	181	55	50	458	223	235	435	146
Adjusted Hourly Volume			132	397	0	17	236	0	50	458	223	235	581	0
Utilization Factor			0.04	0.10	0.00	0.00	0.06	0.00	0.03	0.11	0.00	0.13	0.15	0.00
Critical Factors				0.10		0.00				0.11		0.13		

ICU Ratio = 0.44 LOS = A

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	2	1	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	4000	1800	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			587	420	85	400	1482	152	24	180	95	122	734	148
Adjusted Hourly Volume			587	505	0	400	1482	152	24	180	95	122	734	148
Utilization Factor			0.16	0.08	0.00	0.11	0.25	0.08	0.01	0.05	0.05	0.07	0.18	0.08
Critical Factors			0.16				0.25		0.01				0.18	

ICU Ratio = 0.70 LOS = B

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	1	2	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	2000	3600	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			159	1375	108	218	934	15	128	681	630	165	255	345
Adjusted Hourly Volume			159	1483	0	218	934	15	128	341	971	165	255	345
Utilization Factor			0.04	0.25	0.00	0.06	0.16	0.01	0.07	0.17	0.27	0.09	0.06	0.19
Critical Factors				0.25		0.06					0.27	0.09		

ICU Ratio = 0.77 LOS = C

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	1099	0	362	0	505	71	0	645	288
Adjusted Hourly Volume			0	0	0	1099	0	362	0	576	0	0	645	0
Utilization Factor			0.00	0.00	0.00	0.31	0.00	0.20	0.00	0.10	0.00	0.00	0.16	0.00
Critical Factors				0.00	0.00	0.31			0.00				0.16	

ICU Ratio = 0.57 LOS = A

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	552	0	156	0	826	245	0	741	1016
Adjusted Hourly Volume			0	0	0	552	0	156	0	1071	0	0	741	0
Utilization Factor			0.00	0.00	0.00	0.15	0.00	0.09	0.00	0.18	0.00	0.00	0.19	0.00
Critical Factors				0.00	0.00	0.15			0.00				0.19	

ICU Ratio = 0.44 LOS = A

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			61	0	1138	0	0	0	72	1551	0	0	817	425
Adjusted Hourly Volume			61	0	1138	0	0	0	72	1551	0	0	817	425
Utilization Factor			0.03	0.00	0.32	0.00	0.00	0.00	0.04	0.26	0.00	0.00	0.14	0.12
Critical Factors					0.32	0.00				0.26		0.00		

ICU Ratio = 0.68 LOS = B

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside Free-flow	7												
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			77	0	511	0	0	0	207	1173	0	0	1631	950
Adjusted Hourly Volume			77	0	511	0	0	0	207	1173	0	0	1631	950
Utilization Factor			0.04	0.00	0.14	0.00	0.00	0.00	0.12	0.20	0.00	0.00	0.27	0.26
Critical Factors					0.14	0.00			0.12				0.27	

ICU Ratio = 0.63 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			115	35	87	81	35	73	120	2451	115	93	1025	190
Adjusted Hourly Volume			115	0	122	81	0	108	120	2566	0	93	1025	190
Utilization Factor			0.03	0.00	0.07	0.02	0.00	0.06	0.03	0.43	0.00	0.03	0.13	0.11
Critical Factors			0.03					0.06		0.43		0.03		

ICU Ratio = 0.65 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	113	183	244	118	262	253	1166	167	226	2024	287
Adjusted Hourly Volume			202	0	296	244	0	380	253	1333	0	226	2024	287
Utilization Factor			0.06	0.00	0.16	0.07	0.00	0.21	0.07	0.22	0.00	0.06	0.25	0.16
Critical Factors			0.06					0.21	0.07				0.25	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			104	26	161	103	27	66	149	2239	173	102	1024	175
Adjusted Hourly Volume			104	0	187	103	27	93	149	2239	173	102	1024	175
Utilization Factor			0.03	0.00	0.05	0.03	0.01	0.05	0.04	0.37	0.10	0.06	0.17	0.10
Critical Factors					0.05	0.03				0.37		0.06		

ICU Ratio = 0.61 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			339	57	245	207	58	204	174	1277	152	294	2091	134
Adjusted Hourly Volume			339	0	302	207	58	204	174	1429	0	294	2091	134
Utilization Factor			0.09	0.00	0.08	0.06	0.03	0.11	0.05	0.24	0.00	0.16	0.35	0.07
Critical Factors			0.09					0.11		0.24		0.16		

ICU Ratio = 0.70 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			65	17	89	50	9	60	129	2316	94	63	1226	133
Adjusted Hourly Volume			65	0	106	50	9	60	129	2316	94	63	1359	0
Utilization Factor			0.04	0.00	0.06	0.03	0.00	0.03	0.07	0.39	0.05	0.04	0.23	0.00
Critical Factors					0.06	0.03				0.39		0.04		

ICU Ratio = 0.62 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			152	29	79	182	42	194	67	1888	119	103	2443	74
Adjusted Hourly Volume			152	0	108	182	42	194	67	1888	119	103	2517	0
Utilization Factor			0.08	0.00	0.06	0.10	0.02	0.11	0.04	0.31	0.07	0.06	0.42	0.00
Critical Factors			0.08					0.11	0.04				0.42	

ICU Ratio = 0.75 LOS = C

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	410	238	42	176	170	664	1571	140	141	964	43
Adjusted Hourly Volume			167	410	238	42	176	0	664	1571	140	141	964	43
Utilization Factor			0.05	0.10	0.13	0.02	0.09	0.00	0.18	0.26	0.08	0.04	0.16	0.02
Critical Factors					0.13	0.02			0.18				0.16	

ICU Ratio = 0.59 LOS = A

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			176	225	152	31	397	541	162	1223	265	253	1577	86
Adjusted Hourly Volume			176	225	152	31	397	460	162	1223	265	253	1577	86
Utilization Factor			0.05	0.06	0.08	0.02	0.20	0.26	0.05	0.20	0.15	0.07	0.26	0.05
Critical Factors			0.05					0.26	0.05				0.26	

ICU Ratio = 0.72 LOS = C

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	0	1	1	1	1	3	0	1	2	1
Capacity			3600	2000	0	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			116	82	54	54	20	43	125	1413	347	174	1024	309
Adjusted Hourly Volume			116	136	0	54	20	43	125	1760	0	174	1024	309
Utilization Factor			0.03	0.07	0.00	0.03	0.01	0.02	0.07	0.29	0.00	0.10	0.26	0.17
Critical Factors				0.07		0.03				0.29		0.10		

ICU Ratio = 0.59 LOS = A

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	1	1	1	1	1	3	0	1	2	1
Capacity			3600	0	1800	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			354	30	171	362	118	188	32	1555	243	46	1369	39
Adjusted Hourly Volume			354	0	201	362	118	188	32	1798	0	46	1369	39
Utilization Factor			0.10	0.00	0.11	0.20	0.06	0.10	0.02	0.30	0.00	0.03	0.34	0.02
Critical Factors					0.11	0.20			0.02				0.34	

ICU Ratio = 0.77 LOS = C

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:15 AM to 9:15 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			42	8	53	24	2	12	56	1076	134	243	1293	81
Adjusted Hourly Volume			42	8	53	38	0	0	56	1210	0	243	1374	0
Utilization Factor			0.02	0.00	0.03	0.02	0.00	0.00	0.03	0.20	0.00	0.14	0.23	0.00
Critical Factors					0.03	0.02				0.20		0.14		

ICU Ratio = 0.49 LOS = A

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	5	280	60	17	45	23	1724	60	63	1172	50
Adjusted Hourly Volume			121	5	280	122	0	0	23	1784	0	63	1222	0
Utilization Factor			0.07	0.00	0.16	0.07	0.00	0.00	0.01	0.30	0.00	0.04	0.20	0.00
Critical Factors					0.16	0.07				0.30		0.04		

ICU Ratio = 0.67 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			161	619	389	372	929	264	126	879	128	678	1516	604
Adjusted Hourly Volume			161	619	50	372	929	201	126	879	128	678	1516	604
Utilization Factor			0.04	0.10	0.01	0.10	0.15	0.11	0.04	0.15	0.07	0.19	0.25	0.17
Critical Factors				0.10		0.10				0.15		0.19		

ICU Ratio = 0.64 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	970	556	617	880	146	355	1527	137	490	985	479
Adjusted Hourly Volume			202	970	556	617	880	146	355	1527	137	490	985	479
Utilization Factor			0.06	0.16	0.15	0.17	0.15	0.08	0.10	0.25	0.08	0.14	0.16	0.13
Critical Factors				0.16		0.17				0.25		0.14		

ICU Ratio = 0.82 LOS = D

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			92	60	34	20	24	107	253	1217	184	142	2455	137
Adjusted Hourly Volume			92	60	34	20	24	107	253	1217	184	142	2592	0
Utilization Factor			0.05	0.03	0.02	0.01	0.01	0.06	0.14	0.20	0.10	0.08	0.43	0.00
Critical Factors			0.05					0.06	0.14				0.43	

ICU Ratio = 0.78 LOS = C

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			94	31	117	96	48	311	106	2422	215	44	1522	51
Adjusted Hourly Volume			94	31	117	96	48	311	106	2422	215	44	1573	0
Utilization Factor			0.05	0.02	0.07	0.05	0.02	0.17	0.06	0.40	0.12	0.02	0.26	0.00
Critical Factors			0.05					0.17		0.40		0.02		

ICU Ratio = 0.74 LOS = C

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			128	99	105	53	46	28	103	1022	92	323	2768	169
Adjusted Hourly Volume			128	99	105	53	74	0	103	1022	92	323	2937	0
Utilization Factor			0.04	0.05	0.06	0.01	0.02	0.00	0.03	0.17	0.05	0.09	0.49	0.00
Critical Factors					0.06	0.01			0.03				0.49	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 5:00 PM to 6:00 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	69	352	262	101	51	36	2232	207	354	1385	30
Adjusted Hourly Volume			167	69	352	262	152	0	36	2232	207	354	1415	0
Utilization Factor			0.05	0.03	0.20	0.07	0.04	0.00	0.01	0.37	0.12	0.10	0.24	0.00
Critical Factors					0.20	0.07				0.37		0.10		

ICU Ratio = 0.84 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			514	589	193	74	685	1229	428	823	126	100	1607	54
Adjusted Hourly Volume			514	0	143	74	685	955	428	823	126	100	1607	54
Utilization Factor			0.14	0.00	0.08	0.02	0.17	0.27	0.12	0.14	0.07	0.03	0.27	0.03
Critical Factors			0.14					0.27	0.12				0.27	

ICU Ratio = 0.90 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	662	244	175	574	640	1010	1851	379	191	895	71
Adjusted Hourly Volume			121	906	0	175	574	75	1010	1851	379	191	895	71
Utilization Factor			0.03	0.11	0.00	0.05	0.14	0.02	0.28	0.31	0.21	0.05	0.15	0.04
Critical Factors			0.03				0.14		0.28				0.15	

ICU Ratio = 0.70 LOS = B

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			146	1057	65	120	1353	84	52	15	39	105	41	51
Adjusted Hourly Volume			146	1057	65	120	1353	84	67	0	39	105	0	92
Utilization Factor			0.08	0.18	0.04	0.07	0.23	0.05	0.04	0.00	0.02	0.06	0.00	0.05
Critical Factors			0.08				0.23		0.04			0.06		

ICU Ratio = 0.51 LOS = A

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			63	1227	121	237	1548	47	155	18	113	198	38	80
Adjusted Hourly Volume			63	1227	121	237	1548	47	173	0	113	198	0	118
Utilization Factor			0.04	0.20	0.07	0.13	0.26	0.03	0.10	0.00	0.06	0.11	0.00	0.07
Critical Factors				0.20		0.13			0.10			0.11		

ICU Ratio = 0.64 LOS = B

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			392	1362	2	17	1307	243	53	1	82	3	4	8
Adjusted Hourly Volume			392	1362	2	17	1550	0	0	0	136	0	0	15
Utilization Factor			0.11	0.34	0.00	0.01	0.26	0.00	0.00	0.00	0.03	0.00	0.00	0.01
Critical Factors			0.11				0.26				0.03			0.01

ICU Ratio = 0.51 LOS = A

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			156	1254	2	23	1624	94	264	3	430	1	2	5
Adjusted Hourly Volume			156	1254	2	23	1718	0	0	0	697	0	0	8
Utilization Factor			0.04	0.31	0.00	0.01	0.29	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Critical Factors			0.04				0.29				0.15			0.00

ICU Ratio = 0.58 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:00 AM to 9:00 AM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1			1			1		
	2	1			1			1			1		
	3		1			1			1			1	
	4		1			1			1	1		1	1
	5		1			1	1						
	6			1									
	Outside Free-flow 7												
Lane Settings		2	3	1	2	3	0	2	2	0	2	1	1
Capacity		3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		18	1246	246	96	1151	12	19	10	6	344	7	151
Adjusted Hourly Volume		18	1246	246	96	1163	0	19	16	0	344	0	158
Utilization Factor		0.01	0.21	0.14	0.03	0.19	0.00	0.01	0.00	0.00	0.10	0.00	0.09
Critical Factors			0.21		0.03				0.00		0.10		

ICU Ratio = 0.44 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1			1			1		
	2	1			1			1			1		
	3		1			1			1			1	
	4		1			1			1	1		1	1
	5		1			1	1						
	6			1									
	Outside Free-flow 7												
Lane Settings		2	3	1	2	3	0	2	2	0	2	1	1
Capacity		3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		9	1214	459	202	1794	14	7	7	3	270	16	113
Adjusted Hourly Volume		9	1214	459	202	1808	0	7	7	10	270	0	113
Utilization Factor		0.00	0.20	0.26	0.06	0.30	0.00	0.00	0.00	0.00	0.08	0.00	0.06
Critical Factors				0.26	0.06				0.00		0.08		

ICU Ratio = 0.50 LOS = A

APPENDIX D

EXISTING + PROJECT INTERSECTION ANALYSIS CALCULATION WORKSHEETS

EXISTING PLUS PROJECT ALTERNATIVE 1 INTERSECTION ANALYSIS CALCULATION WORKSHEETS

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	0	0	1	1	1	1	1	2	0
Capacity			3600	0	0	0	0	1800	1800	2000	1800	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			160	2	12	0	3	5	4	177	528	59	732	7
Adjusted Hourly Volume			174	0	0	0	0	8	4	177	528	59	739	0
Utilization Factor			0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.29	0.03	0.18	0.00
Critical Factors			0.05					0.00			0.29	0.03		

ICU Ratio = 0.47 LOS = A

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1	1	1	1			1		
	2	1	1	1					1			1	
	3								1	1		1	1
	4												
	5												
	6												
	Outside 7												
	Free-flow												
Lane Settings		2	0	0	1	0	0	1	2	0	1	2	0
Capacity		3600	0	0	1800	0	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				Y									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		575	3	78	4	3	1	45	871	203	11	384	4
Adjusted Hourly Volume		656	0	0	8	3	0	45	871	203	11	388	0
Utilization Factor		0.18	0.00	0.00	0.00	0.00	0.00	0.03	0.22	0.00	0.01	0.10	0.00
Critical Factors		0.18			0.00				0.22		0.01		

ICU Ratio = 0.51 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			87	14	9	33	29	36	19	1926	536	124	550	16
Adjusted Hourly Volume			87	23	0	33	29	0	19	1926	536	124	550	16
Utilization Factor			0.02	0.01	0.00	0.01	0.01	0.00	0.01	0.32	0.30	0.07	0.09	0.01
Critical Factors			0.02				0.01			0.32		0.07		

ICU Ratio = 0.52 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			539	35	24	20	13	39	45	995	120	21	1946	32
Adjusted Hourly Volume			539	59	0	20	13	0	45	995	120	21	1946	32
Utilization Factor			0.15	0.01	0.00	0.01	0.01	0.00	0.03	0.17	0.07	0.01	0.32	0.02
Critical Factors			0.15				0.01		0.03				0.32	

ICU Ratio = 0.61 LOS = B

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	1	2	0	1	2	0
Capacity			3600	2000	1800	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			194	168	272	167	305	76	41	368	119	141	354	46
Adjusted Hourly Volume			194	440	272	167	381	0	41	368	119	141	400	0
Utilization Factor			0.05	0.22	0.15	0.05	0.10	0.00	0.02	0.09	0.00	0.08	0.10	0.00
Critical Factors				0.22		0.05				0.09		0.08		

ICU Ratio = 0.54 LOS = A

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	2	0	2	2	0	1	2	0	1	2	0
Capacity			3600	4000	0	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			132	288	109	17	181	55	50	458	223	235	435	146
Adjusted Hourly Volume			132	397	0	17	236	0	50	458	223	235	581	0
Utilization Factor			0.04	0.10	0.00	0.00	0.06	0.00	0.03	0.11	0.00	0.13	0.15	0.00
Critical Factors				0.10		0.00				0.11		0.13		

ICU Ratio = 0.44 LOS = A

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	2	1	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	4000	1800	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			587	422	85	400	1484	152	24	180	95	123	734	148
Adjusted Hourly Volume			587	507	0	400	1484	152	24	180	95	123	734	148
Utilization Factor			0.16	0.08	0.00	0.11	0.25	0.08	0.01	0.05	0.05	0.07	0.18	0.08
Critical Factors			0.16				0.25		0.01				0.18	

ICU Ratio = 0.70 LOS = B

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	1	2	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	2000	3600	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			159	1377	109	218	936	15	128	681	630	166	255	345
Adjusted Hourly Volume			159	1486	0	218	936	15	128	341	971	166	255	345
Utilization Factor			0.04	0.25	0.00	0.06	0.16	0.01	0.07	0.17	0.27	0.09	0.06	0.19
Critical Factors				0.25		0.06					0.27	0.09		

ICU Ratio = 0.77 LOS = C

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	1102	0	362	0	505	71	0	645	290
Adjusted Hourly Volume			0	0	0	1102	0	362	0	576	0	0	645	0
Utilization Factor			0.00	0.00	0.00	0.31	0.00	0.20	0.00	0.10	0.00	0.00	0.16	0.00
Critical Factors				0.00	0.00	0.31			0.00				0.16	

ICU Ratio = 0.57 LOS = A

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	555	0	156	0	828	245	0	741	1018
Adjusted Hourly Volume			0	0	0	555	0	156	0	1073	0	0	741	0
Utilization Factor			0.00	0.00	0.00	0.15	0.00	0.09	0.00	0.18	0.00	0.00	0.19	0.00
Critical Factors				0.00	0.00	0.15			0.00				0.19	

ICU Ratio = 0.44 LOS = A

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			61	0	1140	0	0	0	72	1554	0	0	819	427
Adjusted Hourly Volume			61	0	1140	0	0	0	72	1554	0	0	819	427
Utilization Factor			0.03	0.00	0.32	0.00	0.00	0.00	0.04	0.26	0.00	0.00	0.14	0.12
Critical Factors					0.32	0.00				0.26		0.00		

ICU Ratio = 0.68 LOS = B

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside Free-flow	7												
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			77	0	513	0	0	0	207	1176	0	0	1682	953
Adjusted Hourly Volume			77	0	513	0	0	0	207	1176	0	0	1682	953
Utilization Factor			0.04	0.00	0.14	0.00	0.00	0.00	0.12	0.20	0.00	0.00	0.28	0.26
Critical Factors					0.14	0.00			0.12				0.28	

ICU Ratio = 0.64 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			115	35	87	81	35	73	120	2456	115	93	1029	190
Adjusted Hourly Volume			115	0	122	81	0	108	120	2571	0	93	1029	190
Utilization Factor			0.03	0.00	0.07	0.02	0.00	0.06	0.03	0.43	0.00	0.03	0.13	0.11
Critical Factors			0.03					0.06		0.43		0.03		

ICU Ratio = 0.65 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	113	183	244	118	262	253	1171	167	226	2029	287
Adjusted Hourly Volume			202	0	296	244	0	380	253	1338	0	226	2029	287
Utilization Factor			0.06	0.00	0.16	0.07	0.00	0.21	0.07	0.22	0.00	0.06	0.25	0.16
Critical Factors			0.06					0.21	0.07				0.25	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			104	26	161	103	27	66	149	2244	173	102	1028	175
Adjusted Hourly Volume			104	0	187	103	27	93	149	2244	173	102	1028	175
Utilization Factor			0.03	0.00	0.05	0.03	0.01	0.05	0.04	0.37	0.10	0.06	0.17	0.10
Critical Factors					0.05	0.03				0.37		0.06		

ICU Ratio = 0.61 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			339	57	245	207	58	204	174	1282	152	294	2096	134
Adjusted Hourly Volume			339	0	302	207	58	204	174	1434	0	294	2096	134
Utilization Factor			0.09	0.00	0.08	0.06	0.03	0.11	0.05	0.24	0.00	0.16	0.35	0.07
Critical Factors			0.09					0.11		0.24		0.16		

ICU Ratio = 0.70 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			65	17	89	50	9	60	129	2321	94	63	1230	133
Adjusted Hourly Volume			65	0	106	50	9	60	129	2321	94	63	1363	0
Utilization Factor			0.04	0.00	0.06	0.03	0.00	0.03	0.07	0.39	0.05	0.04	0.23	0.00
Critical Factors					0.06	0.03				0.39		0.04		

ICU Ratio = 0.62 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			152	29	79	182	42	194	67	1893	119	103	2448	74
Adjusted Hourly Volume			152	0	108	182	42	194	67	1893	119	103	2522	0
Utilization Factor			0.08	0.00	0.06	0.10	0.02	0.11	0.04	0.32	0.07	0.06	0.42	0.00
Critical Factors			0.08					0.11	0.04				0.42	

ICU Ratio = 0.75 LOS = C

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	410	238	42	176	170	664	1576	140	141	968	43
Adjusted Hourly Volume			167	410	238	42	176	0	664	1576	140	141	968	43
Utilization Factor			0.05	0.10	0.13	0.02	0.09	0.00	0.18	0.26	0.08	0.04	0.16	0.02
Critical Factors					0.13	0.02			0.18				0.16	

ICU Ratio = 0.59 LOS = A

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			176	225	152	31	397	541	162	1228	265	253	1582	86
Adjusted Hourly Volume			176	225	152	31	397	460	162	1228	265	253	1582	86
Utilization Factor			0.05	0.06	0.08	0.02	0.20	0.26	0.05	0.20	0.15	0.07	0.26	0.05
Critical Factors			0.05					0.26	0.05				0.26	

ICU Ratio = 0.72 LOS = C

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	0	1	1	1	1	3	0	1	2	1
Capacity			3600	2000	0	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			116	82	54	54	20	45	127	1416	347	174	1026	309
Adjusted Hourly Volume			116	136	0	54	20	45	127	1763	0	174	1026	309
Utilization Factor			0.03	0.07	0.00	0.03	0.01	0.03	0.07	0.29	0.00	0.10	0.26	0.17
Critical Factors				0.07		0.03				0.29		0.10		

ICU Ratio = 0.59 LOS = A

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	1	1	1	1	1	3	0	1	2	1
Capacity			3600	0	1800	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			354	30	171	362	118	190	34	1558	243	46	1372	39
Adjusted Hourly Volume			354	0	201	362	118	190	34	1801	0	46	1372	39
Utilization Factor			0.10	0.00	0.11	0.20	0.06	0.11	0.02	0.30	0.00	0.03	0.34	0.02
Critical Factors					0.11	0.20			0.02				0.34	

ICU Ratio = 0.77 LOS = C

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:15 AM to 9:15 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			42	9	53	29	2	14	59	1076	134	243	1293	89
Adjusted Hourly Volume			42	9	53	45	0	0	59	1210	0	243	1382	0
Utilization Factor			0.02	0.00	0.03	0.03	0.00	0.00	0.03	0.20	0.00	0.14	0.23	0.00
Critical Factors					0.03	0.03				0.20		0.14		

ICU Ratio = 0.50 LOS = A

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	6	280	67	18	48	26	1724	60	63	1172	58
Adjusted Hourly Volume			121	6	280	133	0	0	26	1784	0	63	1230	0
Utilization Factor			0.07	0.00	0.16	0.07	0.00	0.00	0.01	0.30	0.00	0.04	0.21	0.00
Critical Factors					0.16	0.07				0.30		0.04		

ICU Ratio = 0.67 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			164	619	389	372	929	267	128	880	130	678	1518	604
Adjusted Hourly Volume			164	619	50	372	929	203.3	128	880	130	678	1518	604
Utilization Factor			0.05	0.10	0.01	0.10	0.15	0.11	0.04	0.15	0.07	0.19	0.25	0.17
Critical Factors				0.10		0.10				0.15		0.19		

ICU Ratio = 0.64 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			205	970	556	617	880	149	358	1529	139	490	987	479
Adjusted Hourly Volume			205	970	556	617	880	149	358	1529	139	490	987	479
Utilization Factor			0.06	0.16	0.15	0.17	0.15	0.08	0.10	0.25	0.08	0.14	0.16	0.13
Critical Factors				0.16		0.17				0.25		0.14		

ICU Ratio = 0.82 LOS = D

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			92	60	34	20	24	107	253	1218	184	142	2457	137
Adjusted Hourly Volume			92	60	34	20	24	107	253	1218	184	142	2594	0
Utilization Factor			0.05	0.03	0.02	0.01	0.01	0.06	0.14	0.20	0.10	0.08	0.43	0.00
Critical Factors			0.05					0.06	0.14				0.43	

ICU Ratio = 0.78 LOS = C

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			94	31	117	96	48	311	106	2424	215	44	1524	51
Adjusted Hourly Volume			94	31	117	96	48	311	106	2424	215	44	1575	0
Utilization Factor			0.05	0.02	0.07	0.05	0.02	0.17	0.06	0.40	0.12	0.02	0.26	0.00
Critical Factors			0.05					0.17		0.40		0.02		

ICU Ratio = 0.74 LOS = C

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			128	99	105	53	46	28	103	1023	92	323	2770	169
Adjusted Hourly Volume			128	99	105	53	74	0	103	1023	92	323	2939	0
Utilization Factor			0.04	0.05	0.06	0.01	0.02	0.00	0.03	0.17	0.05	0.09	0.49	0.00
Critical Factors					0.06	0.01			0.03				0.49	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 5:00 PM to 6:00 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	69	352	262	101	51	36	2234	207	354	1387	30
Adjusted Hourly Volume			167	69	352	262	152	0	36	2234	207	354	1417	0
Utilization Factor			0.05	0.03	0.20	0.07	0.04	0.00	0.01	0.37	0.12	0.10	0.24	0.00
Critical Factors					0.20	0.07				0.37		0.10		

ICU Ratio = 0.84 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			514	589	193	74	685	1229	428	824	126	100	1609	54
Adjusted Hourly Volume			514	0	143	74	685	955	428	824	126	100	1609	54
Utilization Factor			0.14	0.00	0.08	0.02	0.17	0.27	0.12	0.14	0.07	0.03	0.27	0.03
Critical Factors			0.14					0.27	0.12				0.27	

ICU Ratio = 0.90 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	662	244	175	574	640	1010	1853	379	191	897	71
Adjusted Hourly Volume			121	906	0	175	574	75	1010	1853	379	191	897	71
Utilization Factor			0.03	0.11	0.00	0.05	0.14	0.02	0.28	0.31	0.21	0.05	0.15	0.04
Critical Factors			0.03				0.14		0.28				0.15	

ICU Ratio = 0.70 LOS = B

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			146	1060	65	120	1355	84	52	15	39	105	41	51
Adjusted Hourly Volume			146	1060	65	120	1355	84	67	0	39	105	0	92
Utilization Factor			0.08	0.18	0.04	0.07	0.23	0.05	0.04	0.00	0.02	0.06	0.00	0.05
Critical Factors			0.08				0.23		0.04			0.06		

ICU Ratio = 0.51 LOS = A

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			63	1230	121	237	1550	47	155	18	113	198	38	80
Adjusted Hourly Volume			63	1230	121	237	1550	47	173	0	113	198	0	118
Utilization Factor			0.04	0.21	0.07	0.13	0.26	0.03	0.10	0.00	0.06	0.11	0.00	0.07
Critical Factors				0.21		0.13			0.10			0.11		

ICU Ratio = 0.65 LOS = B

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			393	1365	2	17	1309	243	53	1	82	3	4	8
Adjusted Hourly Volume			393	1365	2	17	1552	0	0	0	136	0	0	15
Utilization Factor			0.11	0.34	0.00	0.01	0.26	0.00	0.00	0.00	0.03	0.00	0.00	0.01
Critical Factors			0.11				0.26				0.03			0.01

ICU Ratio = 0.51 LOS = A

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			157	1257	2	23	1626	94	264	3	431	1	2	5
Adjusted Hourly Volume			157	1257	2	23	1720	0	0	0	698	0	0	8
Utilization Factor			0.04	0.31	0.00	0.01	0.29	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Critical Factors			0.04				0.29				0.15			0.00

ICU Ratio = 0.58 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:00 AM to 9:00 AM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1			1			1		
	2	1			1			1			1		
	3		1			1			1			1	
	4		1			1			1	1		1	1
	5		1			1	1						
	6			1									
	Outside Free-flow 7												
Lane Settings		2	3	1	2	3	0	2	2	0	2	1	1
Capacity		3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		18	1250	246	96	1153	12	19	10	6	344	7	151
Adjusted Hourly Volume		18	1250	246	96	1165	0	19	16	0	344	0	158
Utilization Factor		0.01	0.21	0.14	0.03	0.19	0.00	0.01	0.00	0.00	0.10	0.00	0.09
Critical Factors			0.21		0.03				0.00		0.10		

ICU Ratio = 0.44 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1			1			1		
	2	1			1			1			1		
	3		1			1			1			1	
	4		1			1			1	1		1	1
	5		1			1	1						
	6			1									
	Outside Free-flow 7												
Lane Settings		2	3	1	2	3	0	2	2	0	2	1	1
Capacity		3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		9	1218	459	202	1797	14	7	7	3	270	16	113
Adjusted Hourly Volume		9	1218	459	202	1811	0	7	7	10	270	0	113
Utilization Factor		0.00	0.20	0.26	0.06	0.30	0.00	0.00	0.00	0.00	0.08	0.00	0.06
Critical Factors				0.26	0.06				0.00		0.08		

ICU Ratio = 0.50 LOS = A

EXISTING PLUS PROJECT ALTERNATIVE 2 INTERSECTION ANALYSIS CALCULATION WORKSHEETS

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	0	0	1	1	1	1	1	2	0
Capacity			3600	0	0	0	0	1800	1800	2000	1800	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			160	2	12	0	3	5	4	177	529	59	732	7
Adjusted Hourly Volume			174	0	0	0	0	8	4	177	529	59	739	0
Utilization Factor			0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.29	0.03	0.18	0.00
Critical Factors			0.05					0.00			0.29	0.03		

ICU Ratio = 0.47 LOS = A

Cannon Road at Faraday Avenue

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2	1	1	1					1			1	
		3								1	1		1	1
		4												
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	0	1	0	0	1	2	0	1	2	0
Capacity			3600	0	0	1800	0	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					Y									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			575	3	78	4	3	1	4	871	204	11	384	4
Adjusted Hourly Volume			656	0	0	8	3	0	4	871	204	11	388	0
Utilization Factor			0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.10	0.00
Critical Factors			0.18			0.00				0.22		0.01		

ICU Ratio = 0.51 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			87	14	9	33	29	36	19	1928	536	124	550	16
Adjusted Hourly Volume			87	23	0	33	29	0	19	1928	536	124	550	16
Utilization Factor			0.02	0.01	0.00	0.01	0.01	0.00	0.01	0.32	0.30	0.07	0.09	0.01
Critical Factors			0.02				0.01			0.32		0.07		

ICU Ratio = 0.52 LOS = A

College Blvd at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5												1
		6												
	Outside	7												
	Free-flow										1			
Lane Settings			2	2	0	2	1	1	1	3	1	1	3	1
Capacity			3600	4000	0	3600	2000	1800	1800	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			539	35	24	20	13	39	45	997	120	21	1948	32
Adjusted Hourly Volume			539	59	0	20	13	0	45	997	120	21	1948	32
Utilization Factor			0.15	0.01	0.00	0.01	0.01	0.00	0.03	0.17	0.07	0.01	0.32	0.02
Critical Factors			0.15				0.01		0.03				0.32	

ICU Ratio = 0.61 LOS = B

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	1	2	0	1	2	0
Capacity			3600	2000	1800	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			194	168	272	167	305	76	41	368	120	141	354	46
Adjusted Hourly Volume			194	440	272	167	381	0	41	368	120	141	400	0
Utilization Factor			0.05	0.22	0.15	0.05	0.10	0.00	0.02	0.09	0.00	0.08	0.10	0.00
Critical Factors				0.22		0.05				0.09		0.08		

ICU Ratio = 0.54 LOS = A

College Blvd at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	2	0	2	2	0	1	2	0	1	2	0
Capacity			3600	4000	0	3600	4000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			133	288	109	17	181	55	50	458	224	235	435	146
Adjusted Hourly Volume			133	397	0	17	236	0	50	458	224	235	581	0
Utilization Factor			0.04	0.10	0.00	0.00	0.06	0.00	0.03	0.11	0.00	0.13	0.15	0.00
Critical Factors				0.10		0.00				0.11		0.13		

ICU Ratio = 0.44 LOS = A

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	2	1	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	4000	1800	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			587	422	86	400	1486	152	24	180	95	123	734	148
Adjusted Hourly Volume			587	508	0	400	1486	152	24	180	95	123	734	148
Utilization Factor			0.16	0.08	0.00	0.11	0.25	0.08	0.01	0.05	0.05	0.07	0.18	0.08
Critical Factors			0.16				0.25		0.01				0.18	

ICU Ratio = 0.70 LOS = B

El Camino Real at Faraday Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1				1			1	
		3		1			1			1			1	
		4		1			1				1			1
		5		1	1		1							
		6						1						
	Outside Free-flow	7												
Lane Settings			2	3	0	2	3	1	1	1	2	1	2	1
Capacity			3600	6000	0	3600	6000	1800	1800	2000	3600	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			159	1379	109	218	938	15	128	681	630	166	255	345
Adjusted Hourly Volume			159	1488	0	218	938	15	128	341	971	166	255	345
Utilization Factor			0.04	0.25	0.00	0.06	0.16	0.01	0.07	0.17	0.27	0.09	0.06	0.19
Critical Factors				0.25		0.06					0.27	0.09		

ICU Ratio = 0.77 LOS = C

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	1103	0	362	0	505	71	0	645	291
Adjusted Hourly Volume			0	0	0	1103	0	362	0	576	0	0	645	0
Utilization Factor			0.00	0.00	0.00	0.31	0.00	0.20	0.00	0.10	0.00	0.00	0.16	0.00
Critical Factors				0.00	0.00	0.31			0.00				0.16	

ICU Ratio = 0.57 LOS = A

I-5 SB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1				1				1			1	
		2				1				1			1	
		3						1		1	1			
		4												
		5												
		6												
	Outside	7												
	Free-flow													1
Lane Settings			0	0	0	2	0	1	0	3	0	0	2	1
Capacity			0	0	0	3600	0	1800	0	6000	0	0	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			0	0	0	556	0	156	0	826	245	0	741	1020
Adjusted Hourly Volume			0	0	0	556	0	156	0	1071	0	0	741	0
Utilization Factor			0.00	0.00	0.00	0.15	0.00	0.09	0.00	0.18	0.00	0.00	0.19	0.00
Critical Factors				0.00	0.00	0.15			0.00				0.19	

ICU Ratio = 0.44 LOS = A

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside Free-flow	7												
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			61	0	1142	0	0	0	72	1555	0	0	820	428
Adjusted Hourly Volume			61	0	1142	0	0	0	72	1555	0	0	820	428
Utilization Factor			0.03	0.00	0.32	0.00	0.00	0.00	0.04	0.26	0.00	0.00	0.14	0.12
Critical Factors					0.32	0.00				0.26		0.00		

ICU Ratio = 0.68 LOS = B

I-5 NB Ramps at Palomar Airport Road

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1	1					1				1	
		2			1					1			1	
		3			1					1			1	
		4								1				1
		5												1
		6												
	Outside Free-flow	7												
Lane Settings			1	0	2	0	0	0	1	3	0	0	3	2
Capacity			1800	0	3600	0	0	0	1800	6000	0	0	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			77	0	515	0	0	0	207	1177	0	0	1635	954
Adjusted Hourly Volume			77	0	515	0	0	0	207	1177	0	0	1635	954
Utilization Factor			0.04	0.00	0.14	0.00	0.00	0.00	0.12	0.20	0.00	0.00	0.27	0.27
Critical Factors					0.14	0.00			0.12				0.27	

ICU Ratio = 0.63 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			115	35	87	81	35	73	120	2459	115	93	1031	190
Adjusted Hourly Volume			115	0	122	81	0	108	120	2574	0	93	1031	190
Utilization Factor			0.03	0.00	0.07	0.02	0.00	0.06	0.03	0.43	0.00	0.03	0.13	0.11
Critical Factors			0.03					0.06		0.43		0.03		

ICU Ratio = 0.65 LOS = B

Palomar Airport Road at Paseo Del Norte

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1	1		1	
		6											1	
	Outside Free-flow	7												1
Lane Settings			2	1	1	2	1	1	2	3	0	2	4	1
Capacity			3600	2000	1800	3600	2000	1800	3600	6000	0	3600	8000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			202	113	183	244	118	262	253	1174	167	226	2032	287
Adjusted Hourly Volume			202	0	296	244	0	380	253	1341	0	226	2032	287
Utilization Factor			0.06	0.00	0.16	0.07	0.00	0.21	0.07	0.22	0.00	0.06	0.25	0.16
Critical Factors			0.06					0.21	0.07				0.25	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			104	26	161	103	27	66	149	2247	173	102	1030	175
Adjusted Hourly Volume			104	0	187	103	27	93	149	2247	173	102	1030	175
Utilization Factor			0.03	0.00	0.05	0.03	0.01	0.05	0.04	0.37	0.10	0.06	0.17	0.10
Critical Factors					0.05	0.03				0.37		0.06		

ICU Ratio = 0.61 LOS = B

Palomar Airport Road at Armada Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1				1	
		3		1	1		1			1			1	
		4			1			1		1			1	
		5								1				1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	0	2	2	1	1	2	3	1	1	3	1
Capacity			3600	0	3600	3600	2000	1800	3600	6000	1800	1800	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			339	57	245	207	58	204	174	1285	152	294	2099	134
Adjusted Hourly Volume			339	0	302	207	58	204	174	1437	0	294	2099	134
Utilization Factor			0.09	0.00	0.08	0.06	0.03	0.11	0.05	0.24	0.00	0.16	0.35	0.07
Critical Factors			0.09					0.11		0.24		0.16		

ICU Ratio = 0.70 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			65	17	89	50	9	60	129	2324	94	63	1232	133
Adjusted Hourly Volume			65	0	106	50	9	60	129	2324	94	63	1365	0
Utilization Factor			0.04	0.00	0.06	0.03	0.00	0.03	0.07	0.39	0.05	0.04	0.23	0.00
Critical Factors					0.06	0.03				0.39		0.04		

ICU Ratio = 0.62 LOS = B

Palomar Airport Rd at Hidden Valley Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1	1		1			1			1	
		3						1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	0	1	1	1	1	1	3	1	1	3	0
Capacity			1800	0	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			152	29	79	182	42	194	67	1896	119	103	2451	74
Adjusted Hourly Volume			152	0	108	182	42	194	67	1896	119	103	2525	0
Utilization Factor			0.08	0.00	0.06	0.10	0.02	0.11	0.04	0.32	0.07	0.06	0.42	0.00
Critical Factors			0.08					0.11	0.04				0.42	

ICU Ratio = 0.75 LOS = C

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	410	239	43	176	170	664	1579	140	142	970	43
Adjusted Hourly Volume			167	410	239	43	176	0	664	1579	140	142	970	43
Utilization Factor			0.05	0.10	0.13	0.02	0.09	0.00	0.18	0.26	0.08	0.04	0.16	0.02
Critical Factors					0.13	0.02			0.18				0.16	

ICU Ratio = 0.59 LOS = A

Palomar Airport Road at College Ave / Aviara Pkwy

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1		1			1		
		3		1				1		1			1	
		4		1						1			1	
		5			1					1			1	
		6									1			1
	Outside Free-flow	7												
Lane Settings			2	2	1	1	1	1	2	3	1	2	3	1
Capacity			3600	4000	1800	1800	2000	1800	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			176	225	153	32	397	541	162	1231	265	254	1585	87
Adjusted Hourly Volume			176	225	153	32	397	460	162	1231	265	254	1585	87
Utilization Factor			0.05	0.06	0.09	0.02	0.20	0.26	0.05	0.21	0.15	0.07	0.26	0.05
Critical Factors			0.05					0.26	0.05				0.26	

ICU Ratio = 0.72 LOS = C

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	1	0	1	1	1	1	3	0	1	2	1
Capacity			3600	2000	0	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			116	82	54	54	20	46	130	1418	347	174	1028	309
Adjusted Hourly Volume			116	136	0	54	20	46	130	1765	0	174	1028	309
Utilization Factor			0.03	0.07	0.00	0.03	0.01	0.03	0.07	0.29	0.00	0.10	0.26	0.17
Critical Factors				0.07		0.03				0.29		0.10		

ICU Ratio = 0.59 LOS = A

Palomar Airport Rd at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1				1			1			1	
		3		1	1			1		1			1	
		4								1	1			1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			2	0	1	1	1	1	1	3	0	1	2	1
Capacity			3600	0	1800	1800	2000	1800	1800	6000	0	1800	4000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			354	30	171	362	118	193	37	1560	243	46	1374	39
Adjusted Hourly Volume			354	0	201	362	118	193	37	1803	0	46	1374	39
Utilization Factor			0.10	0.00	0.11	0.20	0.06	0.11	0.02	0.30	0.00	0.03	0.34	0.02
Critical Factors					0.11	0.20			0.02				0.34	

ICU Ratio = 0.77 LOS = C

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:15 AM to 9:15 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			42	10	53	33	3	16	61	1076	134	243	1293	95
Adjusted Hourly Volume			42	10	53	52	0	0	61	1210	0	243	1388	0
Utilization Factor			0.02	0.01	0.03	0.03	0.00	0.00	0.03	0.20	0.00	0.14	0.23	0.00
Critical Factors					0.03	0.03				0.20		0.14		

ICU Ratio = 0.50 LOS = A

Palomar Airport Road at Yarrow Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1	1	1	1			1		
		2		1						1			1	
		3			1					1			1	
		4								1	1		1	1
		5												
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	0	0	1	3	0	1	3	0
Capacity			1800	2000	1800	1800	0	0	1800	6000	0	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			121	7	280	73	19	50	28	1724	60	63	1172	64
Adjusted Hourly Volume			121	7	280	142	0	0	28	1784	0	63	1236	0
Utilization Factor			0.07	0.00	0.16	0.08	0.00	0.00	0.02	0.30	0.00	0.04	0.21	0.00
Critical Factors					0.16	0.08				0.30		0.04		

ICU Ratio = 0.68 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			166	619	389	372	929	269	129	882	131	678	1520	604
Adjusted Hourly Volume			166	619	50	372	929	204.8	129	882	131	678	1520	604
Utilization Factor			0.05	0.10	0.01	0.10	0.15	0.11	0.04	0.15	0.07	0.19	0.25	0.17
Critical Factors				0.10		0.10				0.15		0.19		

ICU Ratio = 0.64 LOS = B

Palomar Airport Road at El Camino Real

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1			1			1			1	
		6			1			1			1			1
	Outside Free-flow	7			1									1
Lane Settings			2	3	2	2	3	1	2	3	1	2	3	2
Capacity			3600	6000	3600	3600	6000	1800	3600	6000	1800	3600	6000	3600
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			207	970	556	617	880	151	360	1531	141	490	989	479
Adjusted Hourly Volume			207	970	556	617	880	151	360	1531	141	490	989	479
Utilization Factor			0.06	0.16	0.15	0.17	0.15	0.08	0.10	0.26	0.08	0.14	0.16	0.13
Critical Factors				0.16		0.17				0.26		0.14		

ICU Ratio = 0.83 LOS = D

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:45 AM to 8:45 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			92	60	34	20	24	107	253	1220	184	142	2459	137
Adjusted Hourly Volume			92	60	34	20	24	107	253	1220	184	142	2596	0
Utilization Factor			0.05	0.03	0.02	0.01	0.01	0.06	0.14	0.20	0.10	0.08	0.43	0.00
Critical Factors			0.05					0.06	0.14				0.43	

ICU Ratio = 0.78 LOS = C

Palomar Airport Road at Loker Ave

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2		1			1			1			1	
		3			1			1		1			1	
		4								1			1	1
		5									1			
		6												
	Outside Free-flow	7												
Lane Settings			1	1	1	1	1	1	1	3	1	1	3	0
Capacity			1800	2000	1800	1800	2000	1800	1800	6000	1800	1800	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			94	31	117	96	48	311	106	2426	215	44	1526	51
Adjusted Hourly Volume			94	31	117	96	48	311	106	2426	215	44	1577	0
Utilization Factor			0.05	0.02	0.07	0.05	0.02	0.17	0.06	0.40	0.12	0.02	0.26	0.00
Critical Factors			0.05					0.17		0.40		0.02		

ICU Ratio = 0.74 LOS = C

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			128	99	105	53	46	28	103	1025	92	323	2772	169
Adjusted Hourly Volume			128	99	105	53	74	0	103	1025	92	323	2941	0
Utilization Factor			0.04	0.05	0.06	0.01	0.02	0.00	0.03	0.17	0.05	0.09	0.49	0.00
Critical Factors					0.06	0.01			0.03				0.49	

ICU Ratio = 0.69 LOS = B

Palomar Airport Road at El Fuerte St

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 5:00 PM to 6:00 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1	1		1	1		1			1	
		5								1			1	1
		6									1			
	Outside Free-flow	7												
Lane Settings			2	1	1	2	2	0	2	3	1	2	3	0
Capacity			3600	2000	1800	3600	4000	0	3600	6000	1800	3600	6000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			167	69	352	262	101	51	36	2236	207	354	1389	30
Adjusted Hourly Volume			167	69	352	262	152	0	36	2236	207	354	1419	0
Utilization Factor			0.05	0.03	0.20	0.07	0.04	0.00	0.01	0.37	0.12	0.10	0.24	0.00
Critical Factors					0.20	0.07				0.37		0.10		

ICU Ratio = 0.84 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			515	589	193	74	685	1230	428	826	126	100	1609	54
Adjusted Hourly Volume			515	0	143	74	685	955.8	428	826	126	100	1609	54
Utilization Factor			0.14	0.00	0.08	0.02	0.17	0.27	0.12	0.14	0.07	0.03	0.27	0.03
Critical Factors			0.14					0.27	0.12				0.27	

ICU Ratio = 0.90 LOS = D

Palomar Airport Road at Melrose Dr

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1			1	
		5		1				1		1			1	
		6		1				1			1			1
	Outside Free-flow	7			1									
Lane Settings			2	4	1	2	2	2	2	3	1	2	3	1
Capacity			3600	8000	1800	3600	4000	3600	3600	6000	1800	3600	6000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			122	662	244	175	574	641	1011	1853	380	191	897	71
Adjusted Hourly Volume			122	906	0	175	574	75.12	1011	1853	380	191	897	71
Utilization Factor			0.03	0.11	0.00	0.05	0.14	0.02	0.28	0.31	0.21	0.05	0.15	0.04
Critical Factors			0.03				0.14		0.28				0.15	

ICU Ratio = 0.70 LOS = B

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			146	1062	65	120	1356	84	52	15	39	105	41	51
Adjusted Hourly Volume			146	1062	65	120	1356	84	67	0	39	105	0	92
Utilization Factor			0.08	0.18	0.04	0.07	0.23	0.05	0.04	0.00	0.02	0.06	0.00	0.05
Critical Factors			0.08				0.23		0.04			0.06		

ICU Ratio = 0.51 LOS = A

El Camino Real at Town Garden Rd

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1	1		1		
		2		1			1				1		1	1
		3		1			1							
		4		1			1							
		5			1			1						
		6												
	Outside	7												
	Free-flow													
Lane Settings			1	3	1	1	3	1	1	0	1	1	0	1
Capacity			1800	6000	1800	1800	6000	1800	1800	0	1800	1800	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			63	1232	121	237	1552	47	155	18	113	198	38	80
Adjusted Hourly Volume			63	1232	121	237	1552	47	173	0	113	198	0	118
Utilization Factor			0.04	0.21	0.07	0.13	0.26	0.03	0.10	0.00	0.06	0.11	0.00	0.07
Critical Factors				0.21		0.13			0.10			0.11		

ICU Ratio = 0.65 LOS = B

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 7:30 AM to 8:30 AM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			394	1367	2	17	1310	243	53	1	83	3	4	8
Adjusted Hourly Volume			394	1367	2	17	1553	0	0	0	137	0	0	15
Utilization Factor			0.11	0.34	0.00	0.01	0.26	0.00	0.00	0.00	0.03	0.00	0.00	0.01
Critical Factors			0.11				0.26				0.03			0.01

ICU Ratio = 0.51 LOS = A

El Camino Real at Camino Vida Roble

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:30 PM to 5:30 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1	1	1
		2	1				1		1	1	1			
		3		1			1				1			
		4		1			1	1						
		5			1									
		6												
	Outside Free-flow	7												
Lane Settings			2	2	1	1	3	0	0	0	3	0	0	1
Capacity			3600	4000	1800	1800	6000	0	0	0	4680	0	0	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10											
Hourly Volume			158	1259	2	23	1628	94	264	3	432	1	2	5
Adjusted Hourly Volume			158	1259	2	23	1722	0	0	0	699	0	0	8
Utilization Factor			0.04	0.31	0.00	0.01	0.29	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Critical Factors			0.04				0.29				0.15			0.00

ICU Ratio = 0.58 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 8:00 AM to 9:00 AM		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left) 1	1			1			1			1		
	2	1			1			1			1		
	3		1			1			1			1	
	4		1			1			1	1		1	1
	5		1			1	1						
	6			1									
	Outside Free-flow 7												
Lane Settings		2	3	1	2	3	0	2	2	0	2	1	1
Capacity		3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		18	1253	246	96	1155	12	19	10	6	344	7	151
Adjusted Hourly Volume		18	1253	246	96	1167	0	19	16	0	344	0	158
Utilization Factor		0.01	0.21	0.14	0.03	0.19	0.00	0.01	0.00	0.00	0.10	0.00	0.09
Critical Factors			0.21		0.03				0.00		0.10		

ICU Ratio = 0.44 LOS = A

El Camino Real at Poinsettia Lane

Lane Configuration for Intersection Capacity Utilization

Pk. Hr. Time Period : 4:45 PM to 5:45 PM			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside (left)	1	1			1			1			1		
		2	1			1			1			1		
		3		1			1			1			1	
		4		1			1			1	1		1	1
		5		1			1	1						
		6			1									
	Outside Free-flow	7												
Lane Settings			2	3	1	2	3	0	2	2	0	2	1	1
Capacity			3600	6000	1800	3600	6000	0	3600	4000	0	3600	2000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10											
Hourly Volume			9	1221	459	202	1800	14	7	7	3	270	16	113
Adjusted Hourly Volume			9	1221	459	202	1814	0	7	7	10	270	0	113
Utilization Factor			0.00	0.20	0.26	0.06	0.30	0.00	0.00	0.00	0.00	0.08	0.00	0.06
Critical Factors					0.26	0.06				0.00		0.08		

ICU Ratio = 0.50 LOS = A

APPENDIX E

NEAR-TERM INTERSECTION ANALYSIS CALCULATION WORKSHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	190	560	70	790	10	170	10	20	10	10	10
Future Volume (veh/h)	10	190	560	70	790	10	170	10	20	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	11	211	622	78	878	11	217	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	574	1002	877	99	1068	13	407	214	0	20	20	20
Arrive On Green	0.33	0.57	0.57	0.06	0.30	0.30	0.12	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	1752	1535	1757	3542	44	3514	1845	0	551	551	551
Grp Volume(v), veh/h	11	211	622	78	434	455	217	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1535	1757	1752	1834	1757	1845	0	1652	0	0
Q Serve(g_s), s	0.4	5.9	29.2	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	5.9	29.2	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	574	1002	877	99	528	553	407	214	0	59	0	0
V/C Ratio(X)	0.02	0.21	0.71	0.78	0.82	0.82	0.53	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	574	1002	877	141	613	642	1160	609	0	99	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	1.00	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	22.8	10.4	15.4	46.6	32.4	32.4	41.7	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	4.8	10.7	13.5	13.0	0.8	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	13.4	2.4	13.1	13.6	2.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	22.8	10.9	20.2	57.3	46.0	45.4	42.5	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D			D		
Approach Vol, veh/h		844			967			217			33	
Approach Delay, s/veh		17.9			46.6			42.5			50.4	
Approach LOS		B			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	63.2		8.6	38.7	36.1		16.6
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	6.4	31.2		4.0	2.4	25.0		7.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2030	570	140	580	40	100	40	10	80	70	80
Future Volume (veh/h)	40	2030	570	140	580	40	100	40	10	80	70	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	43	2207	0	152	630	43	109	43	11	87	76	87
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	2072	645	408	3123	968	105	400	97	105	254	216
Arrive On Green	0.03	0.41	0.00	0.23	0.62	0.62	0.03	0.14	0.14	0.03	0.14	0.14
Sat Flow, veh/h	1757	5036	1568	1757	5036	1560	3408	2766	673	3408	1752	1494
Grp Volume(v), veh/h	43	2207	0	152	630	43	109	26	28	87	76	87
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1560	1704	1752	1687	1704	1752	1494
Q Serve(g_s), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Cycle Q Clear(g_c), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	55	2072	645	408	3123	968	105	254	244	105	254	216
V/C Ratio(X)	0.78	1.06	0.00	0.37	0.20	0.04	1.04	0.10	0.11	0.83	0.30	0.40
Avail Cap(c_a), veh/h	68	2072	645	408	3123	968	105	539	519	105	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	42.0	10.7	9.6	63.0	48.3	48.3	62.7	49.7	50.5
Incr Delay (d2), s/veh	29.9	39.7	0.0	0.2	0.1	0.1	98.9	0.1	0.1	38.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	32.4	0.0	4.6	3.3	0.6	3.3	0.8	0.9	2.1	2.5	2.9
LnGrp Delay(d),s/veh	92.4	77.9	0.0	42.2	10.9	9.7	162.6	48.3	48.4	100.9	49.9	50.9
LnGrp LOS	F	F		D	B	A	F	D	D	F	D	D
Approach Vol, veh/h		2250			825			163			250	
Approach Delay, s/veh		78.2			16.6			124.7			68.0	
Approach LOS		E			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.2	59.5	9.0	25.3	9.1	86.6	9.0	25.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	11.5	55.5	6.0	8.9	5.2	9.1	5.3	3.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	2.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	65.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	390	130	160	380	60	210	200	300	190	350	90
Future Volume (veh/h)	50	390	130	160	380	60	210	200	300	190	350	90
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	54	424	141	174	413	65	228	217	326	207	380	98
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	691	227	154	942	147	299	504	438	290	783	199
Arrive On Green	0.05	0.27	0.27	0.09	0.31	0.31	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	1757	2571	845	1757	3025	472	3408	1752	1521	3408	2749	699
Grp Volume(v), veh/h	54	287	278	174	238	240	228	217	326	207	240	238
Grp Sat Flow(s),veh/h/ln	1757	1752	1664	1757	1752	1745	1704	1752	1521	1704	1752	1696
Q Serve(g_s), s	2.2	10.6	10.8	6.5	8.0	8.1	4.8	7.4	14.4	4.4	8.4	8.6
Cycle Q Clear(g_c), s	2.2	10.6	10.8	6.5	8.0	8.1	4.8	7.4	14.4	4.4	8.4	8.6
Prop In Lane	1.00		0.51	1.00		0.27	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	80	471	447	154	546	543	299	504	438	290	499	483
V/C Ratio(X)	0.68	0.61	0.62	1.13	0.44	0.44	0.76	0.43	0.74	0.71	0.48	0.49
Avail Cap(c_a), veh/h	135	853	810	154	872	868	299	734	638	299	734	711
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	34.8	23.6	23.7	33.7	20.3	20.3	33.0	21.4	23.9	33.0	21.9	22.0
Incr Delay (d2), s/veh	9.7	1.3	1.4	110.7	0.5	0.6	10.9	0.6	2.7	7.5	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.3	5.1	7.9	3.9	4.0	2.7	3.7	6.3	2.4	4.2	4.1
LnGrp Delay(d),s/veh	44.4	24.9	25.1	144.4	20.8	20.9	43.9	22.0	26.6	40.5	22.6	22.8
LnGrp LOS	D	C	C	F	C	C	D	C	C	D	C	C
Approach Vol, veh/h		619			652			771			685	
Approach Delay, s/veh		26.7			53.8			30.4			28.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	27.3	11.0	24.9	11.0	27.1	7.9	28.0
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	6.4	16.4	8.5	12.8	6.8	10.6	4.2	10.1
Green Ext Time (p_c), s	0.0	2.7	0.0	3.3	0.0	2.4	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	190	100	130	780	170	720	720	110	440	1560	220
Future Volume (veh/h)	40	190	100	130	780	170	720	720	110	440	1560	220
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	43	207	109	141	848	185	783	783	120	478	1696	239
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	205	1240	550	105	1021	443	2024	3459	526	414	1511	466
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1522	3408	4400	669	3408	5036	1552
Grp Volume(v), veh/h	43	207	109	141	848	185	783	596	307	478	1696	239
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1522	1704	1679	1712	1704	1679	1552
Q Serve(g_s), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Cycle Q Clear(g_c), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	205	1240	550	105	1021	443	2024	2639	1346	414	1511	466
V/C Ratio(X)	0.21	0.17	0.20	1.34	0.83	0.42	0.39	0.23	0.23	1.15	1.12	0.51
Avail Cap(c_a), veh/h	205	1240	550	105	1286	558	2024	2639	1346	414	1511	466
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	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	28.8	13.4	61.1	43.1	72.1	13.9	3.6	3.6	57.1	45.5	37.6
Incr Delay (d2), s/veh	2.3	0.3	0.8	202.7	3.1	0.2	0.0	0.2	0.3	93.4	64.5	4.0
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	1.5	2.6	2.0	9.7	14.7	7.5	7.4	2.8	2.9	12.8	27.1	7.6
LnGrp Delay(d),s/veh	54.3	29.1	14.2	263.8	46.2	72.3	14.0	3.8	3.9	150.5	110.0	41.6
LnGrp LOS	D	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		359			1174			1686			2413	
Approach Delay, s/veh		27.6			76.4			8.5			111.3	
Approach LOS		C			E			A			F	

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	20.0	110.0	12.0	51.0	85.0	45.0	20.1	42.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.8	* 39	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.1	9.8	7.3	17.7	41.0	4.9	31.4
Green Ext Time (p_c), s	0.0	4.5	0.0	1.1	0.0	0.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	67.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	540	80	0	680	310	0	0	0	1160	0	390
Future Volume (veh/h)	0	540	80	0	680	310	0	0	0	1160	0	390
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	600	89	0	756	0				1289	0	433
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1317	193	0	1040	465				1421	0	654
Arrive On Green	0.00	0.30	0.30	0.00	0.30	0.00				0.42	0.00	0.42
Sat Flow, veh/h	0	4604	650	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	452	237	0	756	0				1289	0	433
Grp Sat Flow(s),veh/h/ln	0	1679	1730	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	4.0	4.1	0.0	7.1	0.0				13.0	0.0	8.2
Cycle Q Clear(g_c), s	0.0	4.0	4.1	0.0	7.1	0.0				13.0	0.0	8.2
Prop In Lane	0.00		0.38	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	996	513	0	1040	465				1421	0	654
V/C Ratio(X)	0.00	0.45	0.46	0.00	0.73	0.00				0.91	0.00	0.66
Avail Cap(c_a), veh/h	0	2206	1137	0	2303	1030				2361	0	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	10.5	0.0	11.6	0.0				10.0	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.4	0.0				1.9	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	0.0	3.4	0.0				6.3	0.0	3.6
LnGrp Delay(d),s/veh	0.0	10.6	10.8	0.0	11.9	0.0				12.0	0.0	9.0
LnGrp LOS		B	B		B					B		A
Approach Vol, veh/h		689			756						1722	
Approach Delay, s/veh		10.7			11.9						11.2	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.3		20.4		16.3		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		6.1		15.0		9.1		
Green Ext Time (p_c), s		0.9		0.3		1.1		

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1630	0	0	860	450	70	0	1200	0	0	0
Future Volume (veh/h)	80	1630	0	0	860	450	70	0	1200	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1680	0	0	887	464	72	0	1237			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	102	2299	0	0	1838	964	823	0	1263			
Arrive On Green	0.06	0.46	0.00	0.00	0.12	0.12	0.47	0.00	0.47			
Sat Flow, veh/h	1757	5202	0	0	5202	2640	1757	0	2696			
Grp Volume(v), veh/h	82	1680	0	0	887	464	72	0	1237			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1320	1757	0	1348			
Q Serve(g_s), s	6.5	38.1	0.0	0.0	23.0	23.0	3.2	0.0	63.1			
Cycle Q Clear(g_c), s	6.5	38.1	0.0	0.0	23.0	23.0	3.2	0.0	63.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	102	2299	0	0	1838	964	823	0	1263			
V/C Ratio(X)	0.81	0.73	0.00	0.00	0.48	0.48	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2299	0	0	1838	964	926	0	1421			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.63	0.63	0.00	0.00	0.81	0.81	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.2	31.0	0.0	0.0	49.2	49.2	20.6	0.0	36.5			
Incr Delay (d2), s/veh	4.4	1.3	0.0	0.0	0.7	1.4	0.0	0.0	17.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	17.9	0.0	0.0	10.8	8.6	1.5	0.0	26.5			
LnGrp Delay(d),s/veh	69.5	32.4	0.0	0.0	50.0	50.6	20.6	0.0	54.3			
LnGrp LOS	E	C			D	D	C		D			
Approach Vol, veh/h		1762			1351			1309				
Approach Delay, s/veh		34.1			50.2			52.4				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.3			12.8	56.5		70.7
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		40.1			8.5	25.0		65.1
Green Ext Time (p_c), s		3.1			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	2580	130	100	1080	200	130	40	100	90	40	80
Future Volume (veh/h)	130	2580	130	100	1080	200	130	40	100	90	40	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	138	2745	138	106	1149	213	138	43	106	96	43	85
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1442	3147	156	122	1528	431	185	259	221	127	219	185
Arrive On Green	0.28	0.43	0.43	0.01	0.08	0.08	0.05	0.15	0.15	0.04	0.12	0.12
Sat Flow, veh/h	3408	4911	243	3408	6346	1548	3408	1752	1495	3408	1752	1485
Grp Volume(v), veh/h	138	1862	1021	106	1149	213	138	43	106	96	43	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1796	1704	1586	1548	1704	1752	1495	1704	1752	1485
Q Serve(g_s), s	4.2	70.5	73.4	4.3	24.8	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Cycle Q Clear(g_c), s	4.2	70.5	73.4	4.3	24.8	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1442	2152	1151	122	1528	431	185	259	221	127	219	185
V/C Ratio(X)	0.10	0.87	0.89	0.87	0.75	0.49	0.75	0.17	0.48	0.76	0.20	0.46
Avail Cap(c_a), veh/h	1442	2152	1151	122	3010	793	236	488	416	127	432	366
HCM Platoon Ratio	0.67	0.67	0.67	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	34.4	35.3	68.9	60.3	35.4	65.3	52.1	54.7	66.8	55.0	56.9
Incr Delay (d2), s/veh	0.0	2.3	5.0	36.3	2.7	3.1	6.4	0.1	0.6	20.8	0.2	0.7
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	33.4	38.1	2.7	11.2	5.2	2.8	1.5	3.8	2.2	1.5	3.1
LnGrp Delay(d),s/veh	30.4	36.7	40.3	105.2	63.0	38.5	71.6	52.2	55.3	87.6	55.1	57.5
LnGrp LOS	C	D	D	F	E	D	E	D	E	F	E	E
Approach Vol, veh/h		3021			1468			287			224	
Approach Delay, s/veh		37.6			62.5			62.7			69.9	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	95.7	12.6	22.5	65.2	39.7	9.4	25.7
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.3	75.4	7.6	9.4	6.2	26.8	5.9	11.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	6.8	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2360	190	110	1080	190	110	30	170	110	30	70
Future Volume (veh/h)	160	2360	190	110	1080	190	110	30	170	110	30	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.94	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	170	2511	202	117	1149	202	117	0	202	117	32	74
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1408	3241	1067	118	1434	498	141	0	329	122	198	158
Arrive On Green	0.83	1.00	1.00	0.02	0.09	0.09	0.04	0.00	0.11	0.04	0.11	0.11
Sat Flow, veh/h	3408	5036	1561	1757	5036	1551	3514	0	2956	3408	1845	1475
Grp Volume(v), veh/h	170	2511	202	117	1149	202	117	0	202	117	32	74
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1551	1757	0	1478	1704	1845	1475
Q Serve(g_s), s	1.3	0.0	0.0	9.3	31.3	12.0	4.6	0.0	7.8	4.8	2.2	3.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	9.3	31.3	12.0	4.6	0.0	7.8	4.8	2.2	3.0
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	1408	3241	1067	118	1434	498	141	0	329	122	198	158
V/C Ratio(X)	0.12	0.77	0.19	0.99	0.80	0.41	0.83	0.00	0.61	0.96	0.16	0.47
Avail Cap(c_a), veh/h	1408	3241	1067	118	2266	754	141	0	857	122	527	421
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.27	0.27	0.27	0.80	0.80	0.80	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	68.4	59.5	48.4	66.7	0.0	43.2	67.4	56.8	11.9
Incr Delay (d2), s/veh	0.0	0.5	0.1	71.4	3.9	2.0	31.2	0.0	0.7	68.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.0	6.9	15.1	5.4	2.9	0.0	3.2	3.4	1.1	1.2
LnGrp Delay(d),s/veh	7.3	0.5	0.1	139.8	63.4	50.4	97.9	0.0	43.9	136.2	56.9	12.7
LnGrp LOS	A	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		2883			1468			319			223	
Approach Delay, s/veh		0.9			67.7			63.7			83.9	
Approach LOS		A			E			E			F	

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	13.6	96.1	10.3	20.0	63.8	45.9	10.0	20.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.6	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.3	2.0	6.6	5.0	3.3	33.3	6.8	9.8
Green Ext Time (p_c), s	0.0	22.5	0.0	0.2	0.2	6.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2440	100	70	1290	140	70	20	100	60	10	70
Future Volume (veh/h)	140	2440	100	70	1290	140	70	20	100	60	10	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	151	2624	108	75	1387	151	75	22	108	65	11	75
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	172	2464	830	316	2657	289	79	32	155	82	238	192
Arrive On Green	0.20	0.98	0.98	0.36	1.00	1.00	0.05	0.12	0.12	0.05	0.13	0.13
Sat Flow, veh/h	1757	5036	1552	1757	4593	500	1757	260	1275	1757	1845	1488
Grp Volume(v), veh/h	151	2624	108	75	1014	524	75	0	130	65	11	75
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1735	1757	0	1535	1757	1845	1488
Q Serve(g_s), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Cycle Q Clear(g_c), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	172	2464	830	316	1942	1004	79	0	187	82	238	192
V/C Ratio(X)	0.88	1.06	0.13	0.24	0.52	0.52	0.95	0.00	0.70	0.79	0.05	0.39
Avail Cap(c_a), veh/h	238	2464	830	316	1942	1004	79	0	400	113	514	414
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	0.77	0.77	0.77	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	1.5	0.2	38.1	0.0	0.0	66.7	0.0	59.0	66.0	53.4	55.9
Incr Delay (d2), s/veh	8.7	33.6	0.1	0.1	0.8	1.5	83.0	0.0	1.8	15.4	0.0	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	6.0	18.6	0.1	2.0	0.2	0.4	4.7	0.0	4.9	2.8	0.4	2.7
LnGrp Delay(d),s/veh	64.2	35.1	0.4	38.2	0.8	1.5	149.7	0.0	60.8	81.4	53.4	56.4
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2883			1613			205			151	
Approach Delay, s/veh		35.3			2.8			93.3			66.9	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.2	74.5	10.5	23.8	18.7	87.0	11.6	22.7
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	6.1	* 69	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	6.2	70.5	8.0	8.5	13.7	2.0	7.1	13.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.1	9.9	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	700	1670	150	150	1020	50	180	440	250	50	190	180
Future Volume (veh/h)	700	1670	150	150	1020	50	180	440	250	50	190	180
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	753	1796	161	161	1097	54	194	473	269	54	204	194
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1151	2661	828	207	1191	366	248	789	348	69	330	805
Arrive On Green	0.68	1.00	1.00	0.06	0.24	0.24	0.07	0.23	0.23	0.04	0.18	0.18
Sat Flow, veh/h	3408	5036	1568	3408	5036	1548	3408	3505	1547	1757	1845	1542
Grp Volume(v), veh/h	753	1796	161	161	1097	54	194	473	269	54	204	194
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1548	1704	1752	1547	1757	1845	1542
Q Serve(g_s), s	18.0	0.0	0.0	6.5	29.8	3.3	7.8	16.9	22.8	4.3	14.3	0.0
Cycle Q Clear(g_c), s	18.0	0.0	0.0	6.5	29.8	3.3	7.8	16.9	22.8	4.3	14.3	0.0
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	1151	2661	828	207	1191	366	248	789	348	69	330	805
V/C Ratio(X)	0.65	0.67	0.19	0.78	0.92	0.15	0.78	0.60	0.77	0.78	0.62	0.24
Avail Cap(c_a), veh/h	1151	2661	828	214	1241	381	248	1054	465	114	540	981
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	0.0	64.8	52.2	30.6	63.8	48.6	50.9	66.7	53.1	18.7
Incr Delay (d2), s/veh	0.5	0.6	0.2	14.4	12.9	0.8	13.6	0.3	3.8	7.0	0.7	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	8.4	0.2	0.1	3.5	15.2	1.5	4.2	8.2	10.1	2.2	7.4	4.1
LnGrp Delay(d),s/veh	18.5	0.6	0.2	79.2	65.1	31.4	77.4	48.9	54.7	73.6	53.8	18.7
LnGrp LOS	B	A	A	E	E	C	E	D	D	E	D	B
Approach Vol, veh/h		2710			1312			936			452	
Approach Delay, s/veh		5.5			65.4			56.4			41.1	
Approach LOS		A			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	80.3	16.0	31.0	53.6	39.4	9.7	37.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	8.5	2.0	9.8	16.3	20.0	31.8	6.3	24.8
Green Ext Time (p_c), s	0.0	10.9	0.0	0.9	1.3	1.3	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1490	370	190	1080	330	130	90	60	60	30	50
Future Volume (veh/h)	140	1490	370	190	1080	330	130	90	60	60	30	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	152	1620	402	207	1174	359	141	98	65	65	33	54
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	533	2147	525	228	1313	401	184	158	105	82	274	222
Arrive On Green	0.30	0.54	0.54	0.13	0.35	0.35	0.05	0.16	0.16	0.05	0.15	0.15
Sat Flow, veh/h	1757	4006	980	1757	3779	1155	3408	1015	673	1757	1845	1495
Grp Volume(v), veh/h	152	1354	668	207	1043	490	141	0	163	65	33	54
Grp Sat Flow(s),veh/h/ln	1757	1679	1629	1757	1679	1577	1704	0	1689	1757	1845	1495
Q Serve(g_s), s	9.9	47.0	48.4	17.4	44.1	44.1	6.1	0.0	13.5	5.5	2.3	2.7
Cycle Q Clear(g_c), s	9.9	47.0	48.4	17.4	44.1	44.1	6.1	0.0	13.5	5.5	2.3	2.7
Prop In Lane	1.00		0.60	1.00		0.73	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	533	1799	873	228	1167	548	184	0	263	82	274	222
V/C Ratio(X)	0.29	0.75	0.77	0.91	0.89	0.89	0.77	0.00	0.62	0.79	0.12	0.24
Avail Cap(c_a), veh/h	533	1799	873	247	1419	667	186	0	430	94	467	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	27.1	27.4	64.4	46.3	46.3	70.0	0.0	59.2	70.8	55.4	17.3
Incr Delay (d2), s/veh	0.1	3.0	6.4	31.1	10.6	19.7	15.4	0.0	0.9	28.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	22.5	23.3	10.4	22.1	22.2	3.3	0.0	6.4	3.3	1.2	1.1
LnGrp Delay(d),s/veh	39.9	30.0	33.8	95.4	57.0	66.0	85.4	0.0	60.1	99.0	55.5	17.6
LnGrp LOS	D	C	C	F	E	E	F		E	F	E	B
Approach Vol, veh/h		2174			1740			304			152	
Approach Delay, s/veh		31.9			64.1			71.8			60.6	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.7	86.8	12.3	27.2	51.9	58.5	11.2	28.3
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	19.4	50.4	8.1	4.7	11.9	46.1	7.5	15.5
Green Ext Time (p_c), s	0.0	7.0	0.0	0.2	0.1	6.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1300	180	280	1420	120	50	10	60	40	10	20
Future Volume (veh/h)	70	1300	180	280	1420	120	50	10	60	40	10	20
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.95	0.98		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	79	1461	202	315	1596	135	56	11	67	45	11	22
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	98	1584	219	701	3361	284	220	243	196	136	36	53
Arrive On Green	0.06	0.36	0.36	0.40	0.71	0.71	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1757	4446	614	1757	4723	399	1333	1845	1489	744	274	400
Grp Volume(v), veh/h	79	1103	560	315	1134	597	56	11	67	78	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1765	1333	1845	1489	1418	0	0
Q Serve(g_s), s	6.7	47.2	47.3	19.7	22.1	22.1	0.0	0.8	6.1	5.9	0.0	0.0
Cycle Q Clear(g_c), s	6.7	47.2	47.3	19.7	22.1	22.1	6.0	0.8	6.1	7.3	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.23	1.00		1.00	0.58		0.28
Lane Grp Cap(c), veh/h	98	1196	607	701	2389	1256	220	243	196	225	0	0
V/C Ratio(X)	0.81	0.92	0.92	0.45	0.47	0.48	0.25	0.05	0.34	0.35	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	701	2389	1256	392	481	388	404	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.0	46.3	46.3	33.0	9.4	9.4	59.1	56.9	59.2	59.6	0.0	0.0
Incr Delay (d2), s/veh	9.0	13.0	21.9	0.2	0.7	1.3	0.2	0.0	0.4	0.3	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	3.5	24.1	25.9	9.6	10.3	11.1	2.1	0.4	2.6	3.0	0.0	0.0
LnGrp Delay(d),s/veh	79.0	59.3	68.2	33.2	10.1	10.7	59.4	56.9	59.6	59.9	0.0	0.0
LnGrp LOS	E	E	E	C	B	B	E	E	E	E		
Approach Vol, veh/h		1742			2046			134			78	
Approach Delay, s/veh		63.0			13.8			59.3			59.9	
Approach LOS		E			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	65.9	59.4		24.7	12.6	112.7		24.7
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	21.7	49.3		8.1	8.7	24.1		9.3
Green Ext Time (p_c), s	0.4	4.1		0.2	0.0	8.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	930	320	720	1600	640	170	660	440	560	1050	340
Future Volume (veh/h)	180	930	320	720	1600	640	170	660	440	560	1050	340
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	196	1011	348	783	1739	696	185	717	478	609	1141	370
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	513	1262	388	454	1175	636	233	1544	1214	509	1953	839
Arrive On Green	0.15	0.25	0.25	0.09	0.16	0.16	0.07	0.31	0.31	0.15	0.39	0.39
Sat Flow, veh/h	3408	5036	1549	3408	5036	2724	3408	5036	2760	3408	5036	1556
Grp Volume(v), veh/h	196	1011	348	783	1739	696	185	717	478	609	1141	370
Grp Sat Flow(s),veh/h/ln	1704	1679	1549	1704	1679	1362	1704	1679	1380	1704	1679	1556
Q Serve(g_s), s	7.8	28.2	32.6	20.0	35.0	35.0	8.0	17.3	9.1	22.4	26.9	5.1
Cycle Q Clear(g_c), s	7.8	28.2	32.6	20.0	35.0	35.0	8.0	17.3	9.1	22.4	26.9	5.1
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	513	1262	388	454	1175	636	233	1544	1214	509	1953	839
V/C Ratio(X)	0.38	0.80	0.90	1.72	1.48	1.09	0.79	0.46	0.39	1.20	0.58	0.44
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	509	1953	839
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	57.4	52.7	54.3	68.3	63.3	63.3	68.8	42.0	10.9	63.8	36.3	8.5
Incr Delay (d2), s/veh	0.2	3.0	20.0	326.2	216.4	45.5	2.3	1.0	1.0	89.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	13.5	16.1	30.0	39.8	17.2	3.9	8.2	3.6	16.9	12.5	5.4
LnGrp Delay(d),s/veh	57.6	55.7	74.3	394.5	279.7	108.8	71.2	43.0	11.9	153.7	36.5	8.6
LnGrp LOS	E	E	E	F	F	F	E	D	B	F	D	A
Approach Vol, veh/h		1555			3218			1380			2120	
Approach Delay, s/veh		60.1			270.7			36.0			65.3	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.6	16.3	64.2	28.6	41.0	28.4	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	34.6	10.0	28.9	9.8	37.0	24.4	19.3
Green Ext Time (p_c), s	0.0	2.4	0.2	5.5	0.3	0.0	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	139.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	1280	210	160	2590	150	140	70	60	30	30	120
Future Volume (veh/h)	310	1280	210	160	2590	150	140	70	60	30	30	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	337	1391	228	174	2815	163	152	76	65	33	33	130
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	354	1524	533	632	2303	131	91	322	262	42	270	219
Arrive On Green	0.40	0.61	0.61	0.72	0.95	0.95	0.05	0.17	0.17	0.02	0.15	0.15
Sat Flow, veh/h	1757	5036	1492	1757	4873	277	1757	1845	1503	1757	1845	1495
Grp Volume(v), veh/h	337	1391	228	174	1922	1056	152	76	65	33	33	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1492	1757	1679	1792	1757	1845	1503	1757	1845	1495
Q Serve(g_s), s	27.8	36.5	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Cycle Q Clear(g_c), s	27.8	36.5	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	1524	533	632	1586	847	91	322	262	42	270	219
V/C Ratio(X)	0.95	0.91	0.43	0.28	1.21	1.25	1.66	0.24	0.25	0.78	0.12	0.59
Avail Cap(c_a), veh/h	762	2192	731	632	1586	847	91	464	378	71	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	27.9	8.9	14.2	4.1	4.1	71.1	53.3	12.2	72.8	55.6	59.9
Incr Delay (d2), s/veh	2.6	4.1	0.9	0.0	95.8	112.0	341.9	0.1	0.2	11.2	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	17.3	2.4	2.5	46.2	53.1	12.5	2.7	1.1	1.5	1.2	5.1
LnGrp Delay(d),s/veh	46.6	31.9	9.8	14.2	99.9	116.2	413.0	53.5	12.4	84.0	55.7	60.8
LnGrp LOS	D	C	A	B	F	F	F	D	B	F	E	E
Approach Vol, veh/h		1956			3152			293			196	
Approach Delay, s/veh		31.9			100.6			230.9			63.9	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.9	51.4	12.0	26.7	34.5	76.9	7.8	30.9
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 65	22.0	* 6.1	* 38
Max Q Clear Time (g_c+I1), s	7.2	38.5	9.8	14.2	29.8	72.9	4.8	7.3
Green Ext Time (p_c), s	0.2	6.9	0.0	0.3	0.4	0.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	82.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1140	180	340	2910	180	140	110	140	60	50	40
Future Volume (veh/h)	110	1140	180	340	2910	180	140	110	140	60	50	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.95	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	120	1239	196	370	3163	196	152	120	152	65	54	43
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	347	2845	881	417	2780	168	132	269	230	102	281	199
Arrive On Green	0.20	1.00	1.00	0.24	1.00	1.00	0.04	0.15	0.15	0.03	0.14	0.14
Sat Flow, veh/h	3408	5036	1560	3408	4849	294	3408	1752	1497	3408	1943	1377
Grp Volume(v), veh/h	120	1239	196	370	2168	1191	152	120	152	65	48	49
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1785	1704	1752	1497	1704	1752	1567
Q Serve(g_s), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Cycle Q Clear(g_c), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	347	2845	881	417	1925	1024	132	269	230	102	254	227
V/C Ratio(X)	0.35	0.44	0.22	0.89	1.13	1.16	1.15	0.45	0.66	0.63	0.19	0.22
Avail Cap(c_a), veh/h	347	2845	881	1518	1925	1024	132	403	344	120	397	355
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	0.0	0.0	55.7	0.0	0.0	72.1	57.7	59.8	71.9	56.4	56.6
Incr Delay (d2), s/veh	0.2	0.3	0.4	0.2	57.6	74.7	125.5	0.4	1.2	4.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.1	0.1	7.4	15.4	21.3	5.0	4.6	6.0	1.4	1.8	1.8
LnGrp Delay(d),s/veh	55.6	0.3	0.4	55.9	57.6	74.7	197.6	58.1	61.0	76.5	56.5	56.8
LnGrp LOS	E	A	A	E	F	F	F	E	E	E	E	E
Approach Vol, veh/h		1555			3729			424			162	
Approach Delay, s/veh		4.6			62.9			109.2			64.6	
Approach LOS		A			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	90.7	10.0	26.7	21.3	92.0	8.7	28.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	17.7	2.0	7.8	6.1	6.5	88.0	4.8	16.3
Green Ext Time (p_c), s	0.6	5.6	0.0	0.3	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	870	140	110	1690	60	620	620	210	80	720	1300
Future Volume (veh/h)	500	870	140	110	1690	60	620	620	210	80	720	1300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	515	897	144	113	1742	62	639	639	216	82	742	1340
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	559	2200	680	156	1544	476	495	2187	608	125	827	1096
Arrive On Green	0.33	0.87	0.87	0.05	0.31	0.31	0.15	0.34	0.34	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	515	897	144	113	1742	62	639	639	216	82	742	1340
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1362
Q Serve(g_s), s	21.8	5.2	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
Cycle Q Clear(g_c), s	21.8	5.2	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
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	559	2200	680	156	1544	476	495	2187	608	125	827	1096
V/C Ratio(X)	0.92	0.41	0.21	0.72	1.13	0.13	1.29	0.29	0.36	0.65	0.90	1.22
Avail Cap(c_a), veh/h	586	2200	680	218	1544	476	495	2187	608	164	848	1112
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	5.7	5.5	70.6	52.0	27.1	64.1	35.8	32.4	71.3	55.5	23.0
Incr Delay (d2), s/veh	17.6	0.5	0.6	3.3	66.5	0.6	145.1	0.0	0.1	2.2	11.7	108.7
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	11.5	2.4	1.0	2.4	30.8	1.6	20.2	4.8	6.3	1.7	16.3	26.7
LnGrp Delay(d),s/veh	67.1	6.2	6.1	73.9	118.5	27.6	209.2	35.9	32.5	73.5	67.2	131.7
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	E	F
Approach Vol, veh/h		1556			1917			1494			2164	
Approach Delay, s/veh		26.3			112.9			109.5			107.4	
Approach LOS		C			F			F			F	

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	11.1	71.5	26.0	41.4	30.6	52.0	9.7	57.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	6.9	7.2	23.8	32.8	23.8	48.0	5.6	16.8
Green Ext Time (p_c), s	0.0	3.9	0.0	2.3	0.3	0.0	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	91.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	20	50	140	50	70	160	1360	160	140	1430	90
Future Volume (veh/h)	60	20	50	140	50	70	160	1360	160	140	1430	90
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	64	21	53	149	53	74	170	1447	170	149	1521	96
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	131	43	143	230	88	123	150	1289	394	658	2819	873
Arrive On Green	0.10	0.10	0.10	0.13	0.13	0.13	0.09	0.26	0.26	0.37	0.56	0.56
Sat Flow, veh/h	1339	439	1468	1757	676	943	1757	5036	1537	1757	5036	1560
Grp Volume(v), veh/h	85	0	53	149	0	127	170	1447	170	149	1521	96
Grp Sat Flow(s),veh/h/ln	1778	0	1468	1757	0	1619	1757	1679	1537	1757	1679	1560
Q Serve(g_s), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.6	4.3
Cycle Q Clear(g_c), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.6	4.3
Prop In Lane	0.75		1.00	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	0	143	230	0	211	150	1289	394	658	2819	873
V/C Ratio(X)	0.49	0.00	0.37	0.65	0.00	0.60	1.13	1.12	0.43	0.23	0.54	0.11
Avail Cap(c_a), veh/h	450	0	372	468	0	432	150	1289	394	658	2819	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	0.0	63.4	61.9	0.0	61.5	68.6	55.8	46.7	32.1	20.8	15.5
Incr Delay (d2), s/veh	0.8	0.0	0.6	1.2	0.0	1.0	114.0	65.8	3.4	0.1	0.7	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	3.4	0.0	2.1	6.0	0.0	5.0	11.0	25.6	6.3	4.2	13.4	1.9
LnGrp Delay(d),s/veh	64.9	0.0	63.9	63.1	0.0	62.5	182.6	121.6	50.1	32.1	21.6	15.7
LnGrp LOS	E		E	E		E	F	F	D	C	C	B
Approach Vol, veh/h		138			276			1787			1766	
Approach Delay, s/veh		64.6			62.8			120.6			22.1	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.6	44.8		18.8	17.0	90.4		23.8
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 13	* 40		40.0
Max Q Clear Time (g_c+I1), s	10.7	40.4		8.8	14.8	30.6		14.1
Green Ext Time (p_c), s	0.1	0.0		0.3	0.0	5.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	70.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	10	90	10	10	10	420	1440	10	20	1380	260
Future Volume (veh/h)	60	10	90	10	10	10	420	1440	10	20	1380	260
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		0.93	1.00		0.92	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	45	0	119	10	10	10	438	1500	10	21	1438	271
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	164	0	274	38	38	38	273	1094	481	675	2615	492
Arrive On Green	0.09	0.00	0.09	0.07	0.07	0.07	0.08	0.31	0.31	0.38	0.62	0.62
Sat Flow, veh/h	1757	0	2929	553	553	553	3408	3505	1543	1757	4243	798
Grp Volume(v), veh/h	45	0	119	30	0	0	438	1500	10	21	1137	572
Grp Sat Flow(s),veh/h/ln	1757	0	1464	1659	0	0	1704	1752	1543	1757	1679	1684
Q Serve(g_s), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.5	29.6
Cycle Q Clear(g_c), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.5	29.6
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	164	0	274	115	0	0	273	1094	481	675	2069	1038
V/C Ratio(X)	0.27	0.00	0.44	0.26	0.00	0.00	1.61	1.37	0.02	0.03	0.55	0.55
Avail Cap(c_a), veh/h	445	0	742	443	0	0	273	1094	481	675	2069	1038
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	0.0	64.3	66.2	0.0	0.0	69.0	51.6	35.7	28.8	16.7	16.7
Incr Delay (d2), s/veh	0.9	0.0	1.1	1.2	0.0	0.0	289.4	173.1	0.1	0.0	1.1	2.1
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	1.8	0.0	2.4	1.2	0.0	0.0	16.6	48.9	0.3	0.5	13.9	14.3
LnGrp Delay(d),s/veh	64.2	0.0	65.3	67.4	0.0	0.0	358.4	224.7	35.8	28.8	17.8	18.8
LnGrp LOS	E		E	E			F	F	D	C	B	B
Approach Vol, veh/h		164			30			1948			1730	
Approach Delay, s/veh		65.0			67.4			253.8			18.3	
Approach LOS		E			E			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	63.6	52.8		19.0	18.0	98.4		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.0	38.8		40.0
Max Q Clear Time (g_c+I1), s	3.1	48.8		7.8	14.0	31.6		4.6
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	5.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	139.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	20	10	370	10	160	30	1310	260	110	1210	20
Future Volume (veh/h)	30	20	10	370	10	160	30	1310	260	110	1210	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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	33	22	11	411	11	178	33	1456	289	122	1344	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	268	121	460	411	355	85	1836	567	817	3017	49
Arrive On Green	0.02	0.12	0.12	0.13	0.23	0.23	0.02	0.36	0.36	0.24	0.59	0.59
Sat Flow, veh/h	3408	2303	1039	3408	1752	1515	3408	5036	1555	3408	5102	84
Grp Volume(v), veh/h	33	16	17	411	11	178	33	1456	289	122	884	482
Grp Sat Flow(s),veh/h/ln	1704	1752	1589	1704	1752	1515	1704	1679	1555	1704	1679	1828
Q Serve(g_s), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	38.8	21.8	4.2	21.9	21.9
Cycle Q Clear(g_c), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	38.8	21.8	4.2	21.9	21.9
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	68	204	185	460	411	355	85	1836	567	817	1985	1081
V/C Ratio(X)	0.49	0.08	0.09	0.89	0.03	0.50	0.39	0.79	0.51	0.15	0.45	0.45
Avail Cap(c_a), veh/h	91	456	413	568	432	374	114	1917	592	817	1985	1081
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	72.7	59.1	59.2	63.8	44.2	49.8	72.0	42.6	37.2	45.0	17.0	17.0
Incr Delay (d2), s/veh	2.0	0.1	0.1	12.8	0.0	0.4	6.1	3.6	3.3	0.0	0.7	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	0.7	0.6	0.6	9.2	0.4	6.5	0.7	18.5	9.8	2.0	10.3	11.4
LnGrp Delay(d),s/veh	74.7	59.2	59.3	76.6	44.2	50.2	78.1	46.2	40.4	45.0	17.7	18.3
LnGrp LOS	E	E	E	E	D	D	E	D	D	D	B	B
Approach Vol, veh/h		66			600			1778			1488	
Approach Delay, s/veh		67.0			68.2			45.9			20.2	
Approach LOS		E			E			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	42.0	60.7	25.2	22.1	7.9	94.7	7.2	40.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	6.2	40.8	19.8	3.4	3.4	23.9	3.4	17.3
Green Ext Time (p_c), s	0.1	13.9	0.4	0.1	0.0	7.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	940	220	20	420	10	610	10	90	10	10	10
Future Volume (veh/h)	50	940	220	20	420	10	610	10	90	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	54	1011	237	22	452	11	754	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1266	296	70	1578	38	889	467	0	20	20	20
Arrive On Green	0.04	0.45	0.45	0.04	0.45	0.45	0.25	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	2807	656	1757	3493	85	3514	1845	0	551	551	551
Grp Volume(v), veh/h	54	630	618	22	226	237	754	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1710	1757	1752	1826	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.38	1.00		0.05	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	69	790	771	70	792	825	889	467	0	59	0	0
V/C Ratio(X)	0.78	0.80	0.80	0.31	0.29	0.29	0.85	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	123	790	771	70	792	825	1160	609	0	99	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	1.00	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	47.6	23.5	23.6	46.7	17.3	17.3	35.5	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	7.0	8.2	8.6	11.3	0.9	0.9	4.4	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	16.7	16.4	0.8	4.1	4.3	10.4	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	54.7	31.7	32.2	57.9	18.2	18.1	39.9	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	D	C	C	E	B	B	D			D		
Approach Vol, veh/h		1302			485			754			33	
Approach Delay, s/veh		32.9			20.0			39.9			50.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	51.1		8.6	9.9	51.2		30.3
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.2	33.1		4.0	5.0	10.2		22.4
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	3.9		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1050	130	30	2050	70	580	80	30	50	30	90
Future Volume (veh/h)	100	1050	130	30	2050	70	580	80	30	50	30	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	105	1105	0	32	2158	74	611	84	32	53	32	95
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1291	402	500	2607	807	446	313	112	481	259	221
Arrive On Green	0.03	0.26	0.00	0.28	0.52	0.52	0.13	0.13	0.13	0.14	0.15	0.15
Sat Flow, veh/h	1757	5036	1568	1757	5036	1559	3408	2493	889	3408	1752	1495
Grp Volume(v), veh/h	105	1105	0	32	2158	74	611	57	59	53	32	95
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1559	1704	1752	1630	1704	1752	1495
Q Serve(g_s), s	4.0	27.2	0.0	1.7	47.0	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Cycle Q Clear(g_c), s	4.0	27.2	0.0	1.7	47.0	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	54	1291	402	500	2607	807	446	220	205	481	259	221
V/C Ratio(X)	1.94	0.86	0.00	0.06	0.83	0.09	1.37	0.26	0.29	0.11	0.12	0.43
Avail Cap(c_a), veh/h	54	1763	549	500	2607	807	446	607	564	481	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	46.1	0.0	33.9	26.5	4.1	56.5	51.4	51.6	48.7	48.1	50.4
Incr Delay (d2), s/veh	484.2	7.4	0.0	0.0	3.2	0.2	180.7	0.2	0.3	0.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	13.5	0.0	0.8	22.3	0.7	19.2	1.9	1.9	0.8	1.0	3.1
LnGrp Delay(d),s/veh	547.2	53.5	0.0	33.9	29.6	4.3	237.2	51.6	51.8	48.7	48.2	50.9
LnGrp LOS	F	D		C	C	A	F	D	D	D	D	D
Approach Vol, veh/h		1210			2264			727			180	
Approach Delay, s/veh		96.3			28.9			207.6			49.8	
Approach LOS		F			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	43.0	39.3	22.0	25.7	9.0	73.3	24.9	22.8
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	5.0	* 46	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	3.7	29.2	19.0	9.5	6.0	49.0	3.8	6.2
Green Ext Time (p_c), s	0.0	4.1	0.0	0.4	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	78.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	490	240	260	460	170	150	330	120	20	210	60
Future Volume (veh/h)	60	490	240	260	460	170	150	330	120	20	210	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	75	612	300	325	575	212	188	412	150	25	262	75
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	96	750	368	341	1175	432	220	566	203	71	488	136
Arrive On Green	0.05	0.33	0.33	0.19	0.47	0.47	0.06	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1757	2258	1107	1757	2493	917	3408	2502	899	3408	2681	748
Grp Volume(v), veh/h	75	475	437	325	404	383	188	287	275	25	169	168
Grp Sat Flow(s),veh/h/ln	1757	1752	1613	1757	1752	1658	1704	1752	1648	1704	1752	1676
Q Serve(g_s), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Cycle Q Clear(g_c), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Prop In Lane	1.00		0.69	1.00		0.55	1.00		0.55	1.00		0.45
Lane Grp Cap(c), veh/h	96	582	536	341	826	781	220	396	373	71	319	305
V/C Ratio(X)	0.78	0.82	0.82	0.95	0.49	0.49	0.85	0.72	0.74	0.35	0.53	0.55
Avail Cap(c_a), veh/h	189	716	659	341	867	820	220	654	615	155	620	593
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	41.1	27.0	27.0	35.1	16.0	16.0	40.8	31.6	31.7	42.6	32.6	32.8
Incr Delay (d2), s/veh	12.5	6.0	6.5	36.5	0.4	0.5	26.1	2.5	2.9	3.0	1.4	1.5
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	2.1	11.5	10.7	11.3	6.8	6.5	3.1	6.7	6.5	0.3	3.8	3.9
LnGrp Delay(d),s/veh	53.7	33.0	33.5	71.6	16.5	16.5	66.9	34.1	34.6	45.5	34.0	34.3
LnGrp LOS	D	C	C	E	B	B	E	C	C	D	C	C
Approach Vol, veh/h		987			1112			750			362	
Approach Delay, s/veh		34.8			32.6			42.5			34.9	
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	6.3	25.9	21.6	34.3	10.2	22.1	9.3	46.5
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	2.6	15.7	18.1	23.9	6.8	10.0	5.7	16.0
Green Ext Time (p_c), s	0.0	2.8	0.0	4.5	0.0	1.6	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	720	870	210	270	370	190	1450	120	230	990	20
Future Volume (veh/h)	250	720	870	210	270	370	190	1450	120	230	990	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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	269	774	935	226	290	398	204	1559	129	247	1065	22
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	830	2045	169	252	1253	385
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.24	0.43	0.43	0.07	0.25	0.25
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4731	391	3408	5036	1549
Grp Volume(v), veh/h	269	774	935	226	290	398	204	1106	582	247	1065	22
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1764	1704	1679	1549
Q Serve(g_s), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.3	36.3	9.4	26.2	1.3
Cycle Q Clear(g_c), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.3	36.3	9.4	26.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	830	1451	763	252	1253	385
V/C Ratio(X)	1.29	0.62	1.70	1.21	0.24	0.75	0.25	0.76	0.76	0.98	0.85	0.06
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	830	1451	763	252	1519	467
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	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	34.8	42.0	58.1	30.2	37.4	39.6	31.3	31.3	60.1	46.5	30.1
Incr Delay (d2), s/veh	162.6	0.7	322.6	134.5	0.0	5.3	0.0	2.2	4.1	51.2	7.4	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	16.9	11.6	69.0	13.6	3.7	13.4	3.0	17.2	18.5	6.2	13.0	0.6
LnGrp Delay(d),s/veh	219.9	35.6	364.6	192.6	30.2	42.7	39.6	33.4	35.3	111.3	53.9	30.4
LnGrp LOS	F	D	F	F	C	D	D	C	D	F	D	C
Approach Vol, veh/h		1978			914			1892			1334	
Approach Delay, s/veh		216.2			75.8			34.7			64.1	
Approach LOS		F			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	62.2	18.8	51.0	37.7	38.3	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.6	41.2	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.4	38.3	15.8	48.0	8.3	28.2	17.4	31.9
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.1	4.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	105.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	890	260	0	790	1070	0	0	0	580	0	170
Future Volume (veh/h)	0	890	260	0	790	1070	0	0	0	580	0	170
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	937	274	0	832	0				611	0	179
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1430	417	0	1294	579				828	0	381
Arrive On Green	0.00	0.37	0.37	0.00	0.37	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	4039	1130	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	812	399	0	832	0				611	0	179
Grp Sat Flow(s),veh/h/ln	0	1679	1645	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.4	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Cycle Q Clear(g_c), s	0.0	5.4	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Prop In Lane	0.00		0.69	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1240	608	0	1294	579				828	0	381
V/C Ratio(X)	0.00	0.65	0.66	0.00	0.64	0.00				0.74	0.00	0.47
Avail Cap(c_a), veh/h	0	3719	1823	0	3883	1737				1825	0	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.1	7.1	0.0	7.1	0.0				9.5	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.2	0.5	0.0	0.2	0.0				0.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	0.0	2.6	0.0				2.1	0.0	1.2
LnGrp Delay(d),s/veh	0.0	7.3	7.6	0.0	7.3	0.0				9.9	0.0	9.1
LnGrp LOS		A	A		A					A		A
Approach Vol, veh/h		1211			832						790	
Approach Delay, s/veh		7.4			7.3						9.7	
Approach LOS		A			A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.4		11.7		15.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		7.5		6.5		7.3		
Green Ext Time (p_c), s		1.8		0.1		1.3		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1250	0	0	1770	1000	90	0	540	0	0	0
Future Volume (veh/h)	220	1250	0	0	1770	1000	90	0	540	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1276	0	0	1806	1020	92	0	551			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	245	3676	0	0	2817	1489	351	0	531			
Arrive On Green	0.14	0.73	0.00	0.00	0.37	0.37	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2662	1757	0	2656			
Grp Volume(v), veh/h	224	1276	0	0	1806	1020	92	0	551			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1331	1757	0	1328			
Q Serve(g_s), s	18.9	13.7	0.0	0.0	44.3	48.3	6.6	0.0	30.0			
Cycle Q Clear(g_c), s	18.9	13.7	0.0	0.0	44.3	48.3	6.6	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	245	3676	0	0	2817	1489	351	0	531			
V/C Ratio(X)	0.91	0.35	0.00	0.00	0.64	0.69	0.26	0.00	1.04			
Avail Cap(c_a), veh/h	351	3676	0	0	2817	1489	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	0.68	0.68	1.00	0.00	1.00			
Uniform Delay (d), s/veh	63.7	7.3	0.0	0.0	34.5	35.8	50.7	0.0	60.0			
Incr Delay (d2), s/veh	15.1	0.2	0.0	0.0	0.8	1.8	0.1	0.0	49.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.2	6.5	0.0	0.0	20.8	18.2	3.2	0.0	14.6			
LnGrp Delay(d),s/veh	78.8	7.5	0.0	0.0	35.3	37.5	50.8	0.0	109.0			
LnGrp LOS	E	A			D	D	D		F			
Approach Vol, veh/h		1500			2826			643				
Approach Delay, s/veh		18.2			36.1			100.7				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			25.6	89.3		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		15.7			20.9	50.3		32.0
Green Ext Time (p_c), s		2.3			0.0	3.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	1250	180	240	2130	310	220	120	200	260	130	280
Future Volume (veh/h)	270	1250	180	240	2130	310	220	120	200	260	130	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	281	1302	188	250	2219	323	229	125	208	271	135	292
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	325	1460	211	799	3052	906	274	332	285	341	375	323
Arrive On Green	0.10	0.33	0.33	0.47	0.96	0.96	0.08	0.19	0.19	0.10	0.21	0.21
Sat Flow, veh/h	3408	4428	639	3408	6346	1558	3408	1752	1507	3408	1752	1512
Grp Volume(v), veh/h	281	987	503	250	2219	323	229	125	208	271	135	292
Grp Sat Flow(s),veh/h/ln	1704	1679	1711	1704	1586	1558	1704	1752	1507	1704	1752	1512
Q Serve(g_s), s	12.2	41.9	41.9	6.8	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Cycle Q Clear(g_c), s	12.2	41.9	41.9	6.8	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	1107	564	799	3052	906	274	332	285	341	375	323
V/C Ratio(X)	0.87	0.89	0.89	0.31	0.73	0.36	0.83	0.38	0.73	0.80	0.36	0.90
Avail Cap(c_a), veh/h	359	1298	661	799	3052	906	348	456	392	382	473	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	47.7	47.7	32.3	1.6	0.4	68.0	53.1	57.2	66.0	50.2	57.4
Incr Delay (d2), s/veh	14.6	9.5	16.6	0.0	0.6	0.5	10.8	0.3	2.3	8.8	0.2	17.6
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	6.4	20.9	22.4	3.2	2.3	0.3	5.1	4.5	8.3	5.9	4.8	13.4
LnGrp Delay(d),s/veh	81.5	57.2	64.3	32.4	2.3	0.8	78.7	53.4	59.5	74.8	50.4	75.0
LnGrp LOS	F	E	E	C	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1771			2792			562			698	
Approach Delay, s/veh		63.1			4.8			66.0			70.2	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.2	55.5	16.3	37.1	18.5	78.1	20.0	33.4
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	16.8	* 58	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	8.8	43.9	11.9	30.2	14.2	8.7	13.7	21.5
Green Ext Time (p_c), s	0.3	5.6	0.1	1.4	0.1	21.4	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1370	160	310	2210	150	360	60	260	220	70	220
Future Volume (veh/h)	190	1370	160	310	2210	150	360	60	260	220	70	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	198	1427	167	323	2302	156	375	0	312	229	73	229
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
Arrive On Green	0.33	0.85	0.85	0.36	0.86	0.86	0.11	0.00	0.13	0.14	0.15	0.15
Sat Flow, veh/h	3408	5036	1557	1757	5036	1557	3514	0	2972	3408	1845	1497
Grp Volume(v), veh/h	198	1427	167	323	2302	156	375	0	312	229	73	229
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1757	1679	1557	1757	0	1486	1704	1845	1497
Q Serve(g_s), s	6.6	15.1	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Cycle Q Clear(g_c), s	6.6	15.1	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
V/C Ratio(X)	0.35	0.67	0.20	1.01	1.07	0.18	0.98	0.00	0.83	0.49	0.26	0.99
Avail Cap(c_a), veh/h	558	2131	829	319	2159	882	382	0	818	467	492	399
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	7.8	4.5	47.8	10.7	3.6	66.7	0.0	33.6	59.9	55.9	32.8
Incr Delay (d2), s/veh	0.1	1.2	0.4	18.7	31.0	0.0	41.1	0.0	1.9	0.3	0.2	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.8	1.1	14.7	33.4	0.7	9.9	0.0	4.7	4.4	2.7	8.5
LnGrp Delay(d),s/veh	44.5	9.0	4.9	66.6	41.7	3.7	107.8	0.0	35.5	60.2	56.0	58.4
LnGrp LOS	D	A	A	F	F	A	F		D	E	E	E
Approach Vol, veh/h		1792			2781			687			531	
Approach Delay, s/veh		12.6			42.5			75.0			58.8	
Approach LOS		B			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	69.5	21.0	28.1	30.6	70.3	25.6	23.6
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 27	46.6	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	29.2	17.1	18.0	18.5	8.6	66.3	11.3	13.1
Green Ext Time (p_c), s	0.0	7.0	0.0	0.7	0.0	0.0	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1990	130	110	2570	80	160	40	90	200	50	210
Future Volume (veh/h)	80	1990	130	110	2570	80	160	40	90	200	50	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	85	2117	138	117	2734	85	170	43	96	213	53	223
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2254	828	250	2858	88	150	68	152	211	330	269
Arrive On Green	0.01	0.15	0.15	0.28	1.00	1.00	0.09	0.14	0.14	0.12	0.18	0.18
Sat Flow, veh/h	1757	5036	1550	1757	5014	154	1757	490	1095	1757	1845	1504
Grp Volume(v), veh/h	85	2117	138	117	1821	998	170	0	139	213	53	223
Grp Sat Flow(s),veh/h/ln	1757	1679	1550	1757	1679	1811	1757	0	1586	1757	1845	1504
Q Serve(g_s), s	4.0	62.4	4.6	8.2	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Cycle Q Clear(g_c), s	4.0	62.4	4.6	8.2	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	47	2254	828	250	1913	1032	150	0	220	211	330	269
V/C Ratio(X)	1.81	0.94	0.17	0.47	0.95	0.97	1.13	0.00	0.63	1.01	0.16	0.83
Avail Cap(c_a), veh/h	47	2270	833	250	1913	1032	150	0	359	211	480	391
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.20	0.20	0.20	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.3	61.9	10.7	49.0	0.0	0.0	68.6	0.0	61.0	66.0	52.1	59.4
Incr Delay (d2), s/veh	417.0	6.7	0.3	0.1	3.2	6.8	114.0	0.0	1.1	64.7	0.1	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	30.5	2.0	4.0	0.8	2.0	11.0	0.0	5.5	12.5	1.9	9.4
LnGrp Delay(d),s/veh	491.4	68.6	10.9	49.1	3.2	6.8	182.6	0.0	62.1	130.7	52.2	65.7
LnGrp LOS	F	E	B	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2340			2936			309			489	
Approach Delay, s/veh		80.5			6.2			128.4			92.6	
Approach LOS		F			A			F			F	

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	27.4	73.1	17.0	32.5	9.0	91.5	23.0	26.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	10.5	* 68	* 13	39.0	4.0	26.0	18.0	* 34
Max Q Clear Time (g_c+I1), s	10.2	64.4	14.8	23.4	6.0	2.0	20.0	14.4
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.0	18.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1320	280	270	1670	100	190	240	160	40	420	570
Future Volume (veh/h)	180	1320	280	270	1670	100	190	240	160	40	420	570
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	1483	315	303	1876	112	213	270	180	45	472	640
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	411	2058	641	355	1904	588	223	1110	492	59	504	613
Arrive On Green	0.24	0.82	0.82	0.10	0.38	0.38	0.07	0.32	0.32	0.03	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	202	1483	315	303	1876	112	213	270	180	45	472	640
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	7.7	19.6	6.9	13.1	55.4	6.0	9.3	8.6	13.4	3.8	37.5	41.0
Cycle Q Clear(g_c), s	7.7	19.6	6.9	13.1	55.4	6.0	9.3	8.6	13.4	3.8	37.5	41.0
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	411	2058	641	355	1904	588	223	1110	492	59	504	613
V/C Ratio(X)	0.49	0.72	0.49	0.85	0.99	0.19	0.96	0.24	0.37	0.76	0.94	1.04
Avail Cap(c_a), veh/h	489	2058	641	920	1904	588	223	1110	492	85	504	613
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	9.9	5.1	66.1	46.2	21.7	69.9	37.9	39.6	71.8	53.2	45.4
Incr Delay (d2), s/veh	0.2	1.0	1.2	2.3	17.5	0.7	47.6	0.0	0.2	11.0	24.8	48.3
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	3.6	9.0	3.1	6.3	28.8	2.7	5.9	4.1	5.8	2.0	22.6	25.7
LnGrp Delay(d),s/veh	53.1	10.9	6.3	68.4	63.7	22.4	117.5	38.0	39.8	82.8	78.0	93.7
LnGrp LOS	D	B	A	E	E	C	F	D	D	F	E	F
Approach Vol, veh/h		2000			2291			663			1157	
Approach Delay, s/veh		14.4			62.3			64.0			86.9	
Approach LOS		B			E			E			F	

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	19.8	67.6	15.6	47.0	24.4	63.0	9.3	53.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 22	* 57	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	15.1	21.6	11.3	43.0	9.7	57.4	5.8	15.4
Green Ext Time (p_c), s	0.5	6.5	0.0	0.0	0.2	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1640	260	50	1440	50	380	40	180	390	130	200
Future Volume (veh/h)	40	1640	260	50	1440	50	380	40	180	390	130	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	43	1783	283	54	1565	54	413	43	196	424	141	217
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	172	1833	288	61	1708	59	461	54	247	377	512	422
Arrive On Green	0.10	0.42	0.42	0.03	0.34	0.34	0.14	0.19	0.19	0.21	0.28	0.28
Sat Flow, veh/h	1757	4363	685	1757	4990	172	3408	280	1278	1757	1845	1520
Grp Volume(v), veh/h	43	1368	698	54	1053	566	413	0	239	424	141	217
Grp Sat Flow(s),veh/h/ln	1757	1679	1690	1757	1679	1805	1704	0	1559	1757	1845	1520
Q Serve(g_s), s	3.4	59.8	61.3	4.6	45.1	45.1	17.9	0.0	21.9	32.2	9.0	13.7
Cycle Q Clear(g_c), s	3.4	59.8	61.3	4.6	45.1	45.1	17.9	0.0	21.9	32.2	9.0	13.7
Prop In Lane	1.00		0.41	1.00		0.10	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	172	1411	710	61	1149	618	461	0	301	377	512	422
V/C Ratio(X)	0.25	0.97	0.98	0.89	0.92	0.92	0.90	0.00	0.79	1.12	0.28	0.51
Avail Cap(c_a), veh/h	172	1411	710	61	1247	670	563	0	385	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	42.5	43.0	72.1	47.3	47.3	63.8	0.0	57.7	58.9	42.4	26.3
Incr Delay (d2), s/veh	0.3	17.7	30.0	74.4	12.8	20.6	13.2	0.0	6.5	84.5	0.1	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	1.7	31.2	34.4	3.5	23.0	26.0	9.3	0.0	10.0	24.5	4.6	5.8
LnGrp Delay(d),s/veh	62.8	60.2	73.0	146.5	60.1	67.9	77.0	0.0	64.2	143.4	42.5	26.7
LnGrp LOS	E	E	E	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2109			1673			652			782	
Approach Delay, s/veh		64.5			65.5			72.3			92.8	
Approach LOS		E			E			E			F	

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	9.4	69.4	24.5	46.7	21.1	57.7	37.2	34.0
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	6.6	63.3	19.9	15.7	5.4	47.1	34.2	23.9
Green Ext Time (p_c), s	0.0	0.0	0.4	0.8	0.0	4.2	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	70.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1820	70	70	1370	120	150	20	300	110	20	70
Future Volume (veh/h)	40	1820	70	70	1370	120	150	20	300	110	20	70
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	44	2022	78	78	1522	133	167	22	333	122	22	78
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	57	2245	86	346	2960	258	307	440	361	188	37	102
Arrive On Green	0.03	0.45	0.45	0.20	0.63	0.63	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	4968	191	1757	4708	411	1268	1845	1515	635	154	427
Grp Volume(v), veh/h	44	1364	736	78	1085	570	167	22	333	222	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1802	1757	1679	1762	1268	1845	1515	1216	0	0
Q Serve(g_s), s	3.7	56.3	56.7	5.6	26.6	26.6	0.0	1.4	32.2	24.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	56.3	56.7	5.6	26.6	26.6	22.6	1.4	32.2	25.4	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.23	1.00		1.00	0.55		0.35
Lane Grp Cap(c), veh/h	57	1517	814	346	2110	1108	307	440	361	327	0	0
V/C Ratio(X)	0.77	0.90	0.90	0.23	0.51	0.51	0.54	0.05	0.92	0.68	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	937	346	2110	1108	369	530	435	386	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	72.0	38.0	38.1	50.6	15.3	15.3	52.1	44.0	55.8	53.0	0.0	0.0
Incr Delay (d2), s/veh	8.1	8.9	15.3	0.1	0.9	1.7	0.6	0.0	20.9	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	1.9	27.8	31.7	2.7	12.5	13.3	6.4	0.7	15.5	8.8	0.0	0.0
LnGrp Delay(d),s/veh	80.1	46.9	53.4	50.7	16.2	17.0	52.7	44.0	76.7	55.5	0.0	0.0
LnGrp LOS	F	D	D	D	B	B	D	D	E	E		
Approach Vol, veh/h		2144			1733			522			222	
Approach Delay, s/veh		49.8			18.0			67.6			55.5	
Approach LOS		D			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	35.6	73.8		40.7	9.1	100.3		40.7
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	7.6	58.7		34.2	5.7	28.6		27.4
Green Ext Time (p_c), s	0.0	9.0		0.8	0.0	1.6		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	1610	170	550	1040	510	380	1020	590	770	970	180
Future Volume (veh/h)	380	1610	170	550	1040	510	380	1020	590	770	970	180
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	404	1713	181	585	1106	543	404	1085	628	819	1032	191
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	453	1343	413	386	1244	674	409	1277	1013	704	1712	737
Arrive On Green	0.13	0.27	0.27	0.04	0.08	0.08	0.12	0.25	0.25	0.21	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2726	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	404	1713	181	585	1106	543	404	1085	628	819	1032	191
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1363	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	17.5	40.0	10.6	17.0	32.6	18.2	17.8	30.7	11.0	31.0	25.5	11.1
Cycle Q Clear(g_c), s	17.5	40.0	10.6	17.0	32.6	18.2	17.8	30.7	11.0	31.0	25.5	11.1
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	453	1343	413	386	1244	674	409	1277	1013	704	1712	737
V/C Ratio(X)	0.89	1.28	0.44	1.51	0.89	0.81	0.99	0.85	0.62	1.16	0.60	0.26
Avail Cap(c_a), veh/h	591	1343	413	386	1244	674	409	1578	1177	704	1712	737
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	64.0	55.0	24.2	72.2	66.8	25.1	65.9	53.3	38.9	59.5	41.1	23.8
Incr Delay (d2), s/veh	11.2	129.9	0.3	239.6	5.1	4.1	41.1	7.2	2.9	75.4	0.1	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	9.0	34.7	4.6	20.9	15.8	7.3	10.7	15.1	4.5	21.9	11.9	4.7
LnGrp Delay(d),s/veh	75.1	184.9	24.4	311.8	71.9	29.2	107.0	60.5	41.8	135.0	41.2	23.8
LnGrp LOS	E	F	C	F	E	C	F	E	D	F	D	C
Approach Vol, veh/h		2298			2234			2117			2042	
Approach Delay, s/veh		153.0			124.3			63.8			77.2	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	46.0	24.0	57.0	25.9	43.1	37.0	44.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	19.8	27.5	19.5	34.6	33.0	32.7
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8	0.4	0.0	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	106.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	2550	320	70	1600	60	200	40	170	110	60	330
Future Volume (veh/h)	120	2550	320	70	1600	60	200	40	170	110	60	330
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	125	2656	333	73	1667	62	208	42	177	115	62	344
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	2595	881	71	2408	90	115	419	344	136	442	363
Arrive On Green	0.03	0.17	0.17	0.08	0.97	0.97	0.07	0.23	0.23	0.08	0.24	0.24
Sat Flow, veh/h	1757	5036	1511	1757	4982	185	1757	1845	1514	1757	1845	1516
Grp Volume(v), veh/h	125	2656	333	73	1123	606	208	42	177	115	62	344
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1810	1757	1845	1514	1757	1845	1516
Q Serve(g_s), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Cycle Q Clear(g_c), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	2595	881	71	1622	875	115	419	344	136	442	363
V/C Ratio(X)	0.84	1.02	0.38	1.02	0.69	0.69	1.81	0.10	0.51	0.85	0.14	0.95
Avail Cap(c_a), veh/h	704	2595	881	71	1622	875	115	453	371	141	480	394
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	62.2	14.6	68.9	1.4	1.4	70.1	45.8	37.1	68.3	44.9	56.1
Incr Delay (d2), s/veh	0.5	12.8	0.1	96.7	1.8	3.3	397.6	0.0	0.4	32.9	0.1	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	39.0	6.9	4.8	1.9	2.4	17.4	1.4	5.5	6.0	2.0	17.1
LnGrp Delay(d),s/veh	72.4	75.0	14.7	165.9	3.2	4.6	467.7	45.9	37.5	101.2	45.0	86.4
LnGrp LOS	E	F	B	F	A	A	F	D	D	F	D	F
Approach Vol, veh/h		3114			1802			427			521	
Approach Delay, s/veh		68.5			10.2			247.9			84.7	
Approach LOS		E			B			F			F	

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	83.3	14.0	40.6	16.9	78.5	15.8	38.8
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	8.1	79.3	11.8	35.5	12.6	7.1	11.7	15.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	6.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	65.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2520	290	550	1460	40	180	90	370	280	150	60
Future Volume (veh/h)	70	2520	290	550	1460	40	180	90	370	280	150	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	72	2598	299	567	1505	41	186	93	381	289	155	62
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	659	1871	578	631	1769	48	229	397	343	279	610	234
Arrive On Green	0.39	0.74	0.74	0.06	0.12	0.12	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1555	3408	5036	137	3408	1752	1514	3408	2470	946
Grp Volume(v), veh/h	72	2598	299	567	1003	543	186	93	381	289	108	109
Grp Sat Flow(s),veh/h/ln	1704	1679	1555	1704	1679	1816	1704	1752	1514	1704	1752	1664
Q Serve(g_s), s	2.0	55.7	12.0	24.8	44.0	44.0	8.1	6.5	34.0	12.3	7.4	7.9
Cycle Q Clear(g_c), s	2.0	55.7	12.0	24.8	44.0	44.0	8.1	6.5	34.0	12.3	7.4	7.9
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	659	1871	578	631	1180	638	229	397	343	279	433	411
V/C Ratio(X)	0.11	1.39	0.52	0.90	0.85	0.85	0.81	0.23	1.11	1.03	0.25	0.27
Avail Cap(c_a), veh/h	659	1871	578	1370	1775	960	232	397	343	279	433	411
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	19.3	13.7	69.0	62.4	62.4	69.0	47.4	58.0	68.8	45.3	45.5
Incr Delay (d2), s/veh	0.0	176.6	1.6	1.0	4.1	7.2	17.9	0.1	81.7	62.9	0.1	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	0.9	55.5	5.3	11.8	21.2	23.5	4.4	3.2	22.0	8.2	3.6	3.6
LnGrp Delay(d),s/veh	37.7	195.8	15.2	70.0	66.5	69.6	86.9	47.5	139.7	131.8	45.5	45.7
LnGrp LOS	D	F	B	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		2969			2113			660			506	
Approach Delay, s/veh		173.8			68.2			111.9			94.8	
Approach LOS		F			E			F			F	

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	32.0	61.7	14.3	42.0	35.0	58.7	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	26.8	57.7	10.1	9.9	4.0	46.0	14.3	36.0
Green Ext Time (p_c), s	1.0	0.0	0.0	0.7	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1070	1950	570	270	1020	80	300	700	260	190	610	820
Future Volume (veh/h)	1070	1950	570	270	1020	80	300	700	260	190	610	820
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1138	2074	606	287	1085	85	319	745	277	202	649	872
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
Arrive On Green	0.32	0.49	0.49	0.09	0.24	0.24	0.05	0.23	0.23	0.06	0.22	0.22
Sat Flow, veh/h	3408	5036	1558	3408	5036	1549	3408	6346	1547	3408	3505	2722
Grp Volume(v), veh/h	1138	2074	606	287	1085	85	319	745	277	202	649	872
Grp Sat Flow(s),veh/h/ln	1704	1679	1558	1704	1679	1549	1704	1586	1547	1704	1752	1361
Q Serve(g_s), s	48.4	54.1	36.3	12.5	31.2	5.5	8.2	15.5	22.3	8.9	26.5	0.0
Cycle Q Clear(g_c), s	48.4	54.1	36.3	12.5	31.2	5.5	8.2	15.5	22.3	8.9	26.5	0.0
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	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
V/C Ratio(X)	1.03	0.85	0.80	0.92	0.89	0.23	1.71	0.52	0.56	0.97	0.83	0.58
Avail Cap(c_a), veh/h	1100	2444	756	314	1222	376	186	1523	516	209	872	1567
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	33.8	17.7	67.5	54.8	31.3	70.9	51.0	42.6	70.2	55.7	22.7
Incr Delay (d2), s/veh	19.2	0.4	0.9	29.5	8.0	0.1	342.2	0.1	0.7	52.2	5.7	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	25.7	25.0	15.7	7.2	15.4	2.4	12.7	6.8	9.7	5.7	13.5	11.9
LnGrp Delay(d),s/veh	70.0	34.1	18.6	97.0	62.8	31.4	413.1	51.1	43.3	122.4	61.4	23.0
LnGrp LOS	F	C	B	F	E	C	F	D	D	F	E	C
Approach Vol, veh/h		3818			1457			1341			1723	
Approach Delay, s/veh		42.4			67.7			135.6			49.2	
Approach LOS		D			E			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	18.0	78.8	14.2	39.0	54.4	42.4	13.4	39.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 14	70.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.5	56.1	10.2	28.5	50.4	33.2	10.9	24.3
Green Ext Time (p_c), s	0.0	9.3	0.0	3.3	0.0	1.4	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	63.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	20	120	230	40	190	70	1300	200	250	1630	50
Future Volume (veh/h)	170	20	120	230	40	190	70	1300	200	250	1630	50
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		0.95	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	175	21	124	237	41	196	72	1340	206	258	1680	52
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	236	28	224	328	50	240	70	1182	360	506	2503	775
Arrive On Green	0.15	0.15	0.15	0.19	0.19	0.19	0.04	0.23	0.23	0.29	0.50	0.50
Sat Flow, veh/h	1577	189	1496	1757	269	1287	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	196	0	124	237	0	237	72	1340	206	258	1680	52
Grp Sat Flow(s),veh/h/ln	1766	0	1496	1757	0	1556	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.8	2.6
Cycle Q Clear(g_c), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.8	2.6
Prop In Lane	0.89		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	224	328	0	290	70	1182	360	506	2503	775
V/C Ratio(X)	0.74	0.00	0.55	0.72	0.00	0.82	1.02	1.13	0.57	0.51	0.67	0.07
Avail Cap(c_a), veh/h	447	0	379	468	0	415	70	1182	360	506	2503	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	59.1	57.4	0.0	58.5	72.0	57.4	50.7	44.6	28.5	19.6
Incr Delay (d2), s/veh	1.6	0.0	0.8	1.3	0.0	5.5	114.3	71.2	6.5	0.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	4.8	9.3	0.0	9.9	5.1	24.1	8.2	9.0	17.8	1.2
LnGrp Delay(d),s/veh	62.6	0.0	59.9	58.6	0.0	64.0	186.7	128.6	57.2	45.0	29.9	19.8
LnGrp LOS	E		E	E		E	F	F	E	D	C	B
Approach Vol, veh/h		320			474			1618			1990	
Approach Delay, s/veh		61.5			61.3			122.1			31.6	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	49.6	41.6		26.6	10.2	81.0		32.2
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 18	* 35		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	20.4	37.2		17.9	8.0	39.8		23.9
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	4.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	70.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	10	460	10	10	10	170	1320	10	30	1710	100
Future Volume (veh/h)	280	10	460	10	10	10	170	1320	10	30	1710	100
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		0.96	1.00		0.92	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	196	0	580	10	10	10	175	1361	10	31	1763	103
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	387	0	666	38	38	38	114	1917	850	39	2606	152
Arrive On Green	0.22	0.00	0.22	0.07	0.07	0.07	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1757	0	3025	553	553	553	3408	3505	1554	1757	4861	284
Grp Volume(v), veh/h	196	0	580	30	0	0	175	1361	10	31	1217	649
Grp Sat Flow(s),veh/h/ln	1757	0	1513	1659	0	0	1704	1752	1554	1757	1679	1787
Q Serve(g_s), s	14.7	0.0	27.7	2.6	0.0	0.0	5.0	43.1	0.4	2.6	39.6	39.7
Cycle Q Clear(g_c), s	14.7	0.0	27.7	2.6	0.0	0.0	5.0	43.1	0.4	2.6	39.6	39.7
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	387	0	666	115	0	0	114	1917	850	39	1800	958
V/C Ratio(X)	0.51	0.00	0.87	0.26	0.00	0.00	1.54	0.71	0.01	0.79	0.68	0.68
Avail Cap(c_a), veh/h	445	0	766	443	0	0	114	1917	850	47	1800	958
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	56.4	66.2	0.0	0.0	72.5	25.2	15.5	73.0	25.3	25.4
Incr Delay (d2), s/veh	1.0	0.0	9.7	1.2	0.0	0.0	282.1	2.3	0.0	51.7	2.1	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	12.5	1.2	0.0	0.0	6.8	21.4	0.2	1.8	18.8	20.5
LnGrp Delay(d),s/veh	52.4	0.0	66.1	67.4	0.0	0.0	354.6	27.4	15.5	124.7	27.4	29.2
LnGrp LOS	D		E	E			F	C	B	F	C	C
Approach Vol, veh/h		776			30			1546			1897	
Approach Delay, s/veh		62.6			67.4			64.4			29.6	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	88.1		38.0	11.0	86.4		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.0	45.8		40.0
Max Q Clear Time (g_c+I1), s	4.6	45.1		29.7	7.0	41.7		4.6
Green Ext Time (p_c), s	0.0	1.3		2.1	0.0	3.5		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	290	30	120	20	1280	490	220	1890	20
Future Volume (veh/h)	10	10	10	290	30	120	20	1280	490	220	1890	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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	11	11	312	32	129	22	1376	527	237	2032	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	207	169	358	376	325	688	2837	879	282	2221	24
Arrive On Green	0.01	0.12	0.12	0.10	0.21	0.21	0.20	0.56	0.56	0.08	0.43	0.43
Sat Flow, veh/h	3408	1782	1457	3408	1752	1512	3408	5036	1560	3408	5135	56
Grp Volume(v), veh/h	11	11	11	312	32	129	22	1376	527	237	1328	726
Grp Sat Flow(s),veh/h/ln	1704	1752	1487	1704	1752	1512	1704	1679	1560	1704	1679	1833
Q Serve(g_s), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.6	19.8	10.3	55.7	55.8
Cycle Q Clear(g_c), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.6	19.8	10.3	55.7	55.8
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	204	173	358	376	325	688	2837	879	282	1452	793
V/C Ratio(X)	0.33	0.05	0.06	0.87	0.09	0.40	0.03	0.49	0.60	0.84	0.91	0.92
Avail Cap(c_a), veh/h	91	456	387	427	625	539	688	2837	879	357	1524	832
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	73.8	59.0	59.0	66.1	47.1	50.6	48.1	19.7	7.6	67.8	40.0	40.0
Incr Delay (d2), s/veh	2.1	0.0	0.1	13.9	0.0	0.3	0.0	0.6	3.0	11.0	10.4	17.0
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	0.2	0.4	0.4	7.1	1.1	4.6	0.4	11.5	9.2	5.3	27.9	32.0
LnGrp Delay(d),s/veh	75.9	59.0	59.1	80.1	47.2	50.9	48.1	20.3	10.6	78.8	50.4	57.0
LnGrp LOS	E	E	E	F	D	D	D	C	B	E	D	E
Approach Vol, veh/h		33			473			1925			2291	
Approach Delay, s/veh		64.7			69.9			17.9			55.4	
Approach LOS		E			E			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	90.5	20.7	22.1	36.3	70.9	5.7	37.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	12.3	26.6	15.5	3.0	2.8	57.8	2.5	13.0
Green Ext Time (p_c), s	0.2	24.7	0.2	0.1	0.0	7.1	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	190	560	70	790	10	170	10	20	10	10	10
Future Volume (veh/h)	10	190	560	70	790	10	170	10	20	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	11	211	622	78	878	11	217	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	574	1002	877	99	1068	13	407	214	0	20	20	20
Arrive On Green	0.33	0.57	0.57	0.06	0.30	0.30	0.12	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	1752	1535	1757	3542	44	3514	1845	0	551	551	551
Grp Volume(v), veh/h	11	211	622	78	434	455	217	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1535	1757	1752	1834	1757	1845	0	1652	0	0
Q Serve(g_s), s	0.4	5.9	29.2	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	5.9	29.2	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	574	1002	877	99	528	553	407	214	0	59	0	0
V/C Ratio(X)	0.02	0.21	0.71	0.78	0.82	0.82	0.53	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	574	1002	877	141	613	642	1160	609	0	99	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	1.00	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	22.8	10.4	15.4	46.6	32.4	32.4	41.7	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	4.8	10.7	13.5	13.0	0.8	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	13.4	2.4	13.1	13.6	2.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	22.8	10.9	20.2	57.3	46.0	45.4	42.5	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D			D		
Approach Vol, veh/h		844			967			217			33	
Approach Delay, s/veh		17.9			46.6			42.5			50.4	
Approach LOS		B			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	63.2		8.6	38.7	36.1		16.6
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	6.4	31.2		4.0	2.4	25.0		7.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2032	570	140	582	40	100	40	10	80	70	80
Future Volume (veh/h)	40	2032	570	140	582	40	100	40	10	80	70	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	43	2209	0	152	633	43	109	43	11	87	76	87
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	2072	645	408	3123	968	105	400	97	105	254	216
Arrive On Green	0.03	0.41	0.00	0.23	0.62	0.62	0.03	0.14	0.14	0.03	0.14	0.14
Sat Flow, veh/h	1757	5036	1568	1757	5036	1560	3408	2766	673	3408	1752	1494
Grp Volume(v), veh/h	43	2209	0	152	633	43	109	26	28	87	76	87
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1560	1704	1752	1687	1704	1752	1494
Q Serve(g_s), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Cycle Q Clear(g_c), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	55	2072	645	408	3123	968	105	254	244	105	254	216
V/C Ratio(X)	0.78	1.07	0.00	0.37	0.20	0.04	1.04	0.10	0.11	0.83	0.30	0.40
Avail Cap(c_a), veh/h	68	2072	645	408	3123	968	105	539	519	105	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	42.0	10.7	9.6	63.0	48.3	48.3	62.7	49.7	50.5
Incr Delay (d2), s/veh	29.9	40.0	0.0	0.2	0.1	0.1	98.9	0.1	0.1	38.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	32.4	0.0	4.6	3.3	0.6	3.3	0.8	0.9	2.1	2.5	2.9
LnGrp Delay(d),s/veh	92.4	78.3	0.0	42.2	10.9	9.7	162.6	48.3	48.4	100.9	49.9	50.9
LnGrp LOS	F	F		D	B	A	F	D	D	F	D	D
Approach Vol, veh/h		2252			828			163			250	
Approach Delay, s/veh		78.6			16.6			124.7			68.0	
Approach LOS		E			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.2	59.5	9.0	25.3	9.1	86.6	9.0	25.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	11.5	55.5	6.0	8.9	5.2	9.1	5.3	3.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	2.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	65.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	390	130	160	380	60	210	200	300	190	350	90
Future Volume (veh/h)	50	390	130	160	380	60	210	200	300	190	350	90
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	54	424	141	174	413	65	228	217	326	207	380	98
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	691	227	154	942	147	299	504	438	290	783	199
Arrive On Green	0.05	0.27	0.27	0.09	0.31	0.31	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	1757	2571	845	1757	3025	472	3408	1752	1521	3408	2749	699
Grp Volume(v), veh/h	54	287	278	174	238	240	228	217	326	207	240	238
Grp Sat Flow(s),veh/h/ln	1757	1752	1664	1757	1752	1745	1704	1752	1521	1704	1752	1696
Q Serve(g_s), s	2.2	10.6	10.8	6.5	8.0	8.1	4.8	7.4	14.4	4.4	8.4	8.6
Cycle Q Clear(g_c), s	2.2	10.6	10.8	6.5	8.0	8.1	4.8	7.4	14.4	4.4	8.4	8.6
Prop In Lane	1.00		0.51	1.00		0.27	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	80	471	447	154	546	543	299	504	438	290	499	483
V/C Ratio(X)	0.68	0.61	0.62	1.13	0.44	0.44	0.76	0.43	0.74	0.71	0.48	0.49
Avail Cap(c_a), veh/h	135	853	810	154	872	868	299	734	638	299	734	711
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	34.8	23.6	23.7	33.7	20.3	20.3	33.0	21.4	23.9	33.0	21.9	22.0
Incr Delay (d2), s/veh	9.7	1.3	1.4	110.7	0.5	0.6	10.9	0.6	2.7	7.5	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.3	5.1	7.9	3.9	4.0	2.7	3.7	6.3	2.4	4.2	4.1
LnGrp Delay(d),s/veh	44.4	24.9	25.1	144.4	20.8	20.9	43.9	22.0	26.6	40.5	22.6	22.8
LnGrp LOS	D	C	C	F	C	C	D	C	C	D	C	C
Approach Vol, veh/h		619			652			771			685	
Approach Delay, s/veh		26.7			53.8			30.4			28.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	27.3	11.0	24.9	11.0	27.1	7.9	28.0
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	6.4	16.4	8.5	12.8	6.8	10.6	4.2	10.1
Green Ext Time (p_c), s	0.0	2.7	0.0	3.3	0.0	2.4	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	190	100	131	780	170	720	722	110	440	1562	220
Future Volume (veh/h)	40	190	100	131	780	170	720	722	110	440	1562	220
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	43	207	109	142	848	185	783	785	120	478	1698	239
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	205	1240	550	105	1021	443	2024	3460	525	414	1511	466
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1522	3408	4402	668	3408	5036	1552
Grp Volume(v), veh/h	43	207	109	142	848	185	783	597	308	478	1698	239
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1522	1704	1679	1712	1704	1679	1552
Q Serve(g_s), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Cycle Q Clear(g_c), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	205	1240	550	105	1021	443	2024	2639	1346	414	1511	466
V/C Ratio(X)	0.21	0.17	0.20	1.35	0.83	0.42	0.39	0.23	0.23	1.15	1.12	0.51
Avail Cap(c_a), veh/h	205	1240	550	105	1286	558	2024	2639	1346	414	1511	466
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	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	28.8	13.4	61.1	43.1	72.1	13.9	3.6	3.6	57.1	45.5	37.6
Incr Delay (d2), s/veh	2.3	0.3	0.8	206.4	3.1	0.2	0.0	0.2	0.3	93.4	65.0	4.0
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	1.5	2.6	2.0	9.8	14.7	7.5	7.4	2.8	2.9	12.8	27.1	7.6
LnGrp Delay(d),s/veh	54.3	29.1	14.2	267.5	46.2	72.3	14.0	3.8	3.9	150.5	110.5	41.6
LnGrp LOS	D	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		359			1175			1688			2415	
Approach Delay, s/veh		27.6			77.0			8.5			111.6	
Approach LOS		C			E			A			F	

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	20.0	110.0	12.0	51.0	85.0	45.0	20.1	42.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.8	* 39	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.1	9.8	7.3	17.7	41.0	4.9	31.4
Green Ext Time (p_c), s	0.0	4.5	0.0	1.1	0.0	0.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	68.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	540	80	0	680	312	0	0	0	1163	0	390
Future Volume (veh/h)	0	540	80	0	680	312	0	0	0	1163	0	390
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	600	89	0	756	0				1292	0	433
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1316	193	0	1039	465				1424	0	655
Arrive On Green	0.00	0.30	0.30	0.00	0.30	0.00				0.42	0.00	0.42
Sat Flow, veh/h	0	4604	650	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	452	237	0	756	0				1292	0	433
Grp Sat Flow(s),veh/h/ln	0	1679	1730	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	4.0	4.1	0.0	7.1	0.0				13.1	0.0	8.2
Cycle Q Clear(g_c), s	0.0	4.0	4.1	0.0	7.1	0.0				13.1	0.0	8.2
Prop In Lane	0.00		0.38	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	996	513	0	1039	465				1424	0	655
V/C Ratio(X)	0.00	0.45	0.46	0.00	0.73	0.00				0.91	0.00	0.66
Avail Cap(c_a), veh/h	0	2202	1135	0	2298	1028				2356	0	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	10.5	0.0	11.6	0.0				10.0	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.4	0.0				2.0	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	0.0	3.4	0.0				6.3	0.0	3.6
LnGrp Delay(d),s/veh	0.0	10.6	10.8	0.0	12.0	0.0				12.0	0.0	9.0
LnGrp LOS		B	B		B					B		A
Approach Vol, veh/h		689			756						1725	
Approach Delay, s/veh		10.7			12.0						11.3	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.3		20.5		16.3		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		6.1		15.1		9.1		
Green Ext Time (p_c), s		0.9		0.3		1.1		

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1633	0	0	862	452	70	0	1202	0	0	0
Future Volume (veh/h)	80	1633	0	0	862	452	70	0	1202	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1684	0	0	889	466	72	0	1239			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	102	2295	0	0	1835	962	824	0	1265			
Arrive On Green	0.06	0.46	0.00	0.00	0.12	0.12	0.47	0.00	0.47			
Sat Flow, veh/h	1757	5202	0	0	5202	2640	1757	0	2696			
Grp Volume(v), veh/h	82	1684	0	0	889	466	72	0	1239			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1320	1757	0	1348			
Q Serve(g_s), s	6.5	38.3	0.0	0.0	23.1	23.1	3.2	0.0	63.2			
Cycle Q Clear(g_c), s	6.5	38.3	0.0	0.0	23.1	23.1	3.2	0.0	63.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	102	2295	0	0	1835	962	824	0	1265			
V/C Ratio(X)	0.81	0.73	0.00	0.00	0.48	0.48	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2295	0	0	1835	962	926	0	1421			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.63	0.63	0.00	0.00	0.81	0.81	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.2	31.1	0.0	0.0	49.3	49.3	20.6	0.0	36.5			
Incr Delay (d2), s/veh	4.4	1.3	0.0	0.0	0.7	1.4	0.0	0.0	17.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	17.9	0.0	0.0	10.9	8.7	1.5	0.0	26.5			
LnGrp Delay(d),s/veh	69.5	32.5	0.0	0.0	50.1	50.7	20.6	0.0	54.2			
LnGrp LOS	E	C			D	D	C		D			
Approach Vol, veh/h		1766			1355			1311				
Approach Delay, s/veh		34.2			50.3			52.4				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.2			12.8	56.4		70.8
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		40.3			8.5	25.1		65.2
Green Ext Time (p_c), s		3.1			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	2585	130	100	1084	200	130	40	100	90	40	80
Future Volume (veh/h)	130	2585	130	100	1084	200	130	40	100	90	40	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	138	2750	138	106	1153	213	138	43	106	96	43	85
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1439	3148	155	122	1533	432	185	259	221	127	219	185
Arrive On Green	0.28	0.43	0.43	0.01	0.08	0.08	0.05	0.15	0.15	0.04	0.12	0.12
Sat Flow, veh/h	3408	4911	242	3408	6346	1548	3408	1752	1495	3408	1752	1485
Grp Volume(v), veh/h	138	1865	1023	106	1153	213	138	43	106	96	43	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1796	1704	1586	1548	1704	1752	1495	1704	1752	1485
Q Serve(g_s), s	4.2	70.7	73.6	4.3	24.9	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Cycle Q Clear(g_c), s	4.2	70.7	73.6	4.3	24.9	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1439	2152	1151	122	1533	432	185	259	221	127	219	185
V/C Ratio(X)	0.10	0.87	0.89	0.87	0.75	0.49	0.75	0.17	0.48	0.76	0.20	0.46
Avail Cap(c_a), veh/h	1439	2152	1151	122	3010	793	236	488	416	127	432	366
HCM Platoon Ratio	0.67	0.67	0.67	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	34.5	35.3	68.9	60.3	35.3	65.3	52.1	54.7	66.8	55.0	56.9
Incr Delay (d2), s/veh	0.0	2.3	5.0	36.3	2.7	3.1	6.4	0.1	0.6	20.8	0.2	0.7
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	33.5	38.2	2.7	11.3	5.2	2.8	1.5	3.8	2.2	1.5	3.1
LnGrp Delay(d),s/veh	30.5	36.8	40.3	105.1	63.0	38.4	71.6	52.2	55.3	87.6	55.1	57.5
LnGrp LOS	C	D	D	F	E	D	E	D	E	F	E	E
Approach Vol, veh/h		3026			1472			287			224	
Approach Delay, s/veh		37.7			62.5			62.7			69.9	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	95.7	12.6	22.5	65.1	39.8	9.4	25.7
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.3	75.6	7.6	9.4	6.2	26.9	5.9	11.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	6.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2365	190	110	1084	190	110	30	170	110	30	70
Future Volume (veh/h)	160	2365	190	110	1084	190	110	30	170	110	30	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.94	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	170	2516	202	117	1153	202	117	0	202	117	32	74
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1405	3241	1067	118	1439	499	141	0	329	122	198	158
Arrive On Green	0.82	1.00	1.00	0.02	0.09	0.09	0.04	0.00	0.11	0.04	0.11	0.11
Sat Flow, veh/h	3408	5036	1561	1757	5036	1551	3514	0	2956	3408	1845	1475
Grp Volume(v), veh/h	170	2516	202	117	1153	202	117	0	202	117	32	74
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1551	1757	0	1478	1704	1845	1475
Q Serve(g_s), s	1.4	0.0	0.0	9.3	31.4	12.0	4.6	0.0	7.8	4.8	2.2	3.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	9.3	31.4	12.0	4.6	0.0	7.8	4.8	2.2	3.0
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	1405	3241	1067	118	1439	499	141	0	329	122	198	158
V/C Ratio(X)	0.12	0.78	0.19	0.99	0.80	0.40	0.83	0.00	0.61	0.96	0.16	0.47
Avail Cap(c_a), veh/h	1405	3241	1067	118	2266	754	141	0	857	122	527	421
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	0.80	0.80	0.80	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	0.0	0.0	68.4	59.5	48.4	66.7	0.0	43.2	67.4	56.8	11.9
Incr Delay (d2), s/veh	0.0	0.5	0.1	71.3	3.9	1.9	31.2	0.0	0.7	68.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.0	6.9	15.2	5.4	2.9	0.0	3.2	3.4	1.1	1.2
LnGrp Delay(d),s/veh	7.3	0.5	0.1	139.7	63.4	50.3	97.9	0.0	43.9	136.2	56.9	12.7
LnGrp LOS	A	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		2888			1472			319			223	
Approach Delay, s/veh		0.9			67.6			63.7			83.9	
Approach LOS		A			E			E			F	

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	13.6	96.1	10.3	20.0	63.7	46.0	10.0	20.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.6	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.3	2.0	6.6	5.0	3.4	33.4	6.8	9.8
Green Ext Time (p_c), s	0.0	22.6	0.0	0.2	0.2	6.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2445	100	70	1294	140	70	20	100	60	10	70
Future Volume (veh/h)	140	2445	100	70	1294	140	70	20	100	60	10	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	151	2629	108	75	1391	151	75	22	108	65	11	75
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	172	2464	830	316	2657	288	79	32	155	82	238	192
Arrive On Green	0.20	0.98	0.98	0.36	1.00	1.00	0.05	0.12	0.12	0.05	0.13	0.13
Sat Flow, veh/h	1757	5036	1552	1757	4594	499	1757	260	1275	1757	1845	1488
Grp Volume(v), veh/h	151	2629	108	75	1016	526	75	0	130	65	11	75
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1736	1757	0	1535	1757	1845	1488
Q Serve(g_s), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Cycle Q Clear(g_c), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	172	2464	830	316	1942	1004	79	0	187	82	238	192
V/C Ratio(X)	0.88	1.07	0.13	0.24	0.52	0.52	0.95	0.00	0.70	0.79	0.05	0.39
Avail Cap(c_a), veh/h	238	2464	830	316	1942	1004	79	0	400	113	514	414
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	0.77	0.77	0.77	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	1.5	0.2	38.1	0.0	0.0	66.7	0.0	59.0	66.0	53.4	55.9
Incr Delay (d2), s/veh	8.7	34.4	0.1	0.1	0.8	1.5	83.0	0.0	1.8	15.4	0.0	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	6.0	18.8	0.1	2.0	0.2	0.4	4.7	0.0	4.9	2.8	0.4	2.7
LnGrp Delay(d),s/veh	64.1	35.9	0.4	38.2	0.8	1.5	149.7	0.0	60.8	81.4	53.4	56.4
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2888			1617			205			151	
Approach Delay, s/veh		36.0			2.8			93.3			66.9	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.2	74.5	10.5	23.8	18.7	87.0	11.6	22.7
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	6.1	* 69	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	6.2	70.5	8.0	8.5	13.7	2.0	7.1	13.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.1	9.9	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	700	1675	150	150	1024	50	180	440	250	50	190	180
Future Volume (veh/h)	700	1675	150	150	1024	50	180	440	250	50	190	180
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	753	1801	161	161	1101	54	194	473	269	54	204	194
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1149	2661	828	207	1194	367	248	789	348	69	330	804
Arrive On Green	0.67	1.00	1.00	0.06	0.24	0.24	0.07	0.23	0.23	0.04	0.18	0.18
Sat Flow, veh/h	3408	5036	1568	3408	5036	1548	3408	3505	1547	1757	1845	1542
Grp Volume(v), veh/h	753	1801	161	161	1101	54	194	473	269	54	204	194
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1548	1704	1752	1547	1757	1845	1542
Q Serve(g_s), s	18.1	0.0	0.0	6.5	29.9	3.3	7.8	16.9	22.8	4.3	14.3	0.0
Cycle Q Clear(g_c), s	18.1	0.0	0.0	6.5	29.9	3.3	7.8	16.9	22.8	4.3	14.3	0.0
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	1149	2661	828	207	1194	367	248	789	348	69	330	804
V/C Ratio(X)	0.66	0.68	0.19	0.78	0.92	0.15	0.78	0.60	0.77	0.78	0.62	0.24
Avail Cap(c_a), veh/h	1149	2661	828	214	1241	382	248	1054	465	114	540	980
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	64.8	52.1	30.5	63.8	48.6	50.9	66.7	53.1	18.7
Incr Delay (d2), s/veh	0.5	0.6	0.2	14.4	13.0	0.8	13.6	0.3	3.8	7.0	0.7	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	8.4	0.2	0.1	3.5	15.3	1.5	4.2	8.2	10.1	2.2	7.4	4.1
LnGrp Delay(d),s/veh	18.5	0.6	0.2	79.2	65.2	31.4	77.4	48.9	54.7	73.6	53.8	18.8
LnGrp LOS	B	A	A	E	E	C	E	D	D	E	D	B
Approach Vol, veh/h		2715			1316			936			452	
Approach Delay, s/veh		5.6			65.5			56.4			41.1	
Approach LOS		A			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	80.3	16.0	31.0	53.5	39.5	9.7	37.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	8.5	2.0	9.8	16.3	20.1	31.9	6.3	24.8
Green Ext Time (p_c), s	0.0	10.9	0.0	0.9	1.3	1.3	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1493	370	190	1082	330	130	90	60	60	30	52
Future Volume (veh/h)	142	1493	370	190	1082	330	130	90	60	60	30	52
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	154	1623	402	207	1176	359	141	98	65	65	33	57
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	533	2148	524	228	1315	401	184	158	105	82	274	222
Arrive On Green	0.30	0.54	0.54	0.13	0.35	0.35	0.05	0.16	0.16	0.05	0.15	0.15
Sat Flow, veh/h	1757	4008	978	1757	3781	1154	3408	1015	673	1757	1845	1495
Grp Volume(v), veh/h	154	1356	669	207	1044	491	141	0	163	65	33	57
Grp Sat Flow(s),veh/h/ln	1757	1679	1629	1757	1679	1578	1704	0	1689	1757	1845	1495
Q Serve(g_s), s	10.0	47.1	48.6	17.4	44.2	44.2	6.1	0.0	13.5	5.5	2.3	2.8
Cycle Q Clear(g_c), s	10.0	47.1	48.6	17.4	44.2	44.2	6.1	0.0	13.5	5.5	2.3	2.8
Prop In Lane	1.00		0.60	1.00		0.73	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	533	1799	873	228	1168	549	184	0	263	82	274	222
V/C Ratio(X)	0.29	0.75	0.77	0.91	0.89	0.89	0.77	0.00	0.62	0.79	0.12	0.26
Avail Cap(c_a), veh/h	533	1799	873	247	1419	667	186	0	430	94	467	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	27.1	27.4	64.4	46.3	46.3	70.0	0.0	59.2	70.8	55.4	17.4
Incr Delay (d2), s/veh	0.1	3.0	6.4	31.1	10.6	19.7	15.4	0.0	0.9	28.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	22.6	23.3	10.4	22.2	22.2	3.3	0.0	6.4	3.3	1.2	1.2
LnGrp Delay(d),s/veh	40.0	30.1	33.8	95.4	56.9	66.0	85.4	0.0	60.1	99.0	55.5	17.6
LnGrp LOS	D	C	C	F	E	E	F		E	F	E	B
Approach Vol, veh/h		2179			1742			304			155	
Approach Delay, s/veh		31.9			64.1			71.8			59.8	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.7	86.8	12.3	27.2	51.9	58.6	11.2	28.3
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	19.4	50.6	8.1	4.8	12.0	46.2	7.5	15.5
Green Ext Time (p_c), s	0.0	6.9	0.0	0.2	0.1	6.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1300	180	280	1420	128	50	11	60	45	10	22
Future Volume (veh/h)	73	1300	180	280	1420	128	50	11	60	45	10	22
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.95	0.98		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	82	1461	202	315	1596	144	56	12	67	51	11	25
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	101	1584	219	694	3312	298	223	251	203	141	34	55
Arrive On Green	0.06	0.36	0.36	0.39	0.71	0.71	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1757	4446	614	1757	4694	423	1331	1845	1491	757	248	406
Grp Volume(v), veh/h	82	1103	560	315	1141	599	56	12	67	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1760	1331	1845	1491	1411	0	0
Q Serve(g_s), s	6.9	47.2	47.3	19.8	22.7	22.8	0.0	0.8	6.1	6.9	0.0	0.0
Cycle Q Clear(g_c), s	6.9	47.2	47.3	19.8	22.7	22.8	6.2	0.8	6.1	8.3	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.24	1.00		1.00	0.59		0.29
Lane Grp Cap(c), veh/h	101	1196	607	694	2368	1242	223	251	203	230	0	0
V/C Ratio(X)	0.81	0.92	0.92	0.45	0.48	0.48	0.25	0.05	0.33	0.38	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	694	2368	1242	389	481	389	403	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.9	46.3	46.3	33.5	9.9	9.9	58.6	56.3	58.6	59.4	0.0	0.0
Incr Delay (d2), s/veh	11.1	13.0	21.9	0.2	0.7	1.3	0.2	0.0	0.3	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	24.1	25.9	9.7	10.7	11.4	2.1	0.4	2.5	3.3	0.0	0.0
LnGrp Delay(d),s/veh	81.0	59.3	68.2	33.6	10.6	11.2	58.9	56.4	58.9	59.8	0.0	0.0
LnGrp LOS	F	E	E	C	B	B	E	E	E	E		
Approach Vol, veh/h		1745			2055			135			87	
Approach Delay, s/veh		63.2			14.3			58.7			59.8	
Approach LOS		E			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	65.2	59.4		25.3	12.9	111.8		25.3
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	21.8	49.3		8.2	8.9	24.8		10.3
Green Ext Time (p_c), s	0.4	4.1		0.2	0.0	8.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	931	322	720	1602	640	173	660	440	560	1050	343
Future Volume (veh/h)	182	931	322	720	1602	640	173	660	440	560	1050	343
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	198	1012	350	783	1741	696	188	717	478	609	1141	373
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	516	1266	389	454	1175	636	236	1544	1214	507	1944	838
Arrive On Green	0.15	0.25	0.25	0.09	0.16	0.16	0.07	0.31	0.31	0.15	0.39	0.39
Sat Flow, veh/h	3408	5036	1549	3408	5036	2724	3408	5036	2760	3408	5036	1556
Grp Volume(v), veh/h	198	1012	350	783	1741	696	188	717	478	609	1141	373
Grp Sat Flow(s),veh/h/ln	1704	1679	1549	1704	1679	1362	1704	1679	1380	1704	1679	1556
Q Serve(g_s), s	7.9	28.2	32.8	20.0	35.0	35.0	8.2	17.3	9.2	22.3	27.0	5.2
Cycle Q Clear(g_c), s	7.9	28.2	32.8	20.0	35.0	35.0	8.2	17.3	9.2	22.3	27.0	5.2
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	516	1266	389	454	1175	636	236	1544	1214	507	1944	838
V/C Ratio(X)	0.38	0.80	0.90	1.72	1.48	1.09	0.80	0.46	0.39	1.20	0.59	0.45
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	507	1944	838
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	57.4	52.6	54.3	68.3	63.3	63.3	68.8	42.0	10.9	63.8	36.5	8.5
Incr Delay (d2), s/veh	0.2	3.0	20.4	326.2	217.2	45.5	2.3	1.0	1.0	92.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	13.5	16.2	30.0	39.9	17.2	3.9	8.2	3.6	17.0	12.5	5.5
LnGrp Delay(d),s/veh	57.5	55.6	74.7	394.5	280.4	108.8	71.1	43.0	11.9	156.6	36.7	8.7
LnGrp LOS	E	E	E	F	F	F	E	D	B	F	D	A
Approach Vol, veh/h		1560			3220			1383			2123	
Approach Delay, s/veh		60.1			271.1			36.1			66.1	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.7	16.4	63.9	28.7	41.0	28.3	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	34.8	10.2	29.0	9.9	37.0	24.3	19.3
Green Ext Time (p_c), s	0.0	2.4	0.2	5.5	0.3	0.0	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	139.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	1281	210	160	2592	150	140	70	60	30	30	120
Future Volume (veh/h)	310	1281	210	160	2592	150	140	70	60	30	30	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	337	1392	228	174	2817	163	152	76	65	33	33	130
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	354	1525	534	632	2303	131	91	322	262	42	270	219
Arrive On Green	0.40	0.61	0.61	0.72	0.95	0.95	0.05	0.17	0.17	0.02	0.15	0.15
Sat Flow, veh/h	1757	5036	1492	1757	4873	276	1757	1845	1503	1757	1845	1495
Grp Volume(v), veh/h	337	1392	228	174	1923	1057	152	76	65	33	33	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1492	1757	1679	1792	1757	1845	1503	1757	1845	1495
Q Serve(g_s), s	27.8	36.6	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Cycle Q Clear(g_c), s	27.8	36.6	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	1525	534	632	1586	847	91	322	262	42	270	219
V/C Ratio(X)	0.95	0.91	0.43	0.28	1.21	1.25	1.66	0.24	0.25	0.78	0.12	0.59
Avail Cap(c_a), veh/h	762	2192	731	632	1586	847	91	464	378	71	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	27.8	8.9	14.2	4.1	4.1	71.1	53.3	12.2	72.8	55.6	59.9
Incr Delay (d2), s/veh	2.6	4.1	0.9	0.0	96.1	112.4	341.9	0.1	0.2	11.2	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	17.1	2.4	2.5	46.3	53.2	12.5	2.7	1.1	1.5	1.2	5.1
LnGrp Delay(d),s/veh	46.6	31.9	9.8	14.2	100.2	116.5	413.0	53.5	12.4	84.0	55.7	60.8
LnGrp LOS	D	C	A	B	F	F	F	D	B	F	E	E
Approach Vol, veh/h		1957			3154			293			196	
Approach Delay, s/veh		31.9			101.0			230.9			63.9	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.9	51.4	12.0	26.7	34.5	76.9	7.8	30.9
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 65	22.0	* 6.1	* 38
Max Q Clear Time (g_c+I1), s	7.2	38.6	9.8	14.2	29.8	72.9	4.8	7.3
Green Ext Time (p_c), s	0.2	6.9	0.0	0.3	0.4	0.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	82.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1141	180	340	2912	180	140	110	140	60	50	40
Future Volume (veh/h)	110	1141	180	340	2912	180	140	110	140	60	50	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.95	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	120	1240	196	370	3165	196	152	120	152	65	54	43
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	347	2845	881	417	2780	168	132	269	230	102	281	199
Arrive On Green	0.20	1.00	1.00	0.24	1.00	1.00	0.04	0.15	0.15	0.03	0.14	0.14
Sat Flow, veh/h	3408	5036	1560	3408	4849	294	3408	1752	1497	3408	1943	1377
Grp Volume(v), veh/h	120	1240	196	370	2169	1192	152	120	152	65	48	49
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1785	1704	1752	1497	1704	1752	1567
Q Serve(g_s), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Cycle Q Clear(g_c), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	347	2845	881	417	1925	1024	132	269	230	102	254	227
V/C Ratio(X)	0.35	0.44	0.22	0.89	1.13	1.16	1.15	0.45	0.66	0.63	0.19	0.22
Avail Cap(c_a), veh/h	347	2845	881	1518	1925	1024	132	403	344	120	397	355
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	0.0	0.0	55.7	0.0	0.0	72.1	57.7	59.8	71.9	56.4	56.6
Incr Delay (d2), s/veh	0.2	0.3	0.4	0.2	57.9	75.0	125.5	0.4	1.2	4.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.1	0.1	7.4	15.5	21.3	5.0	4.6	6.0	1.4	1.8	1.8
LnGrp Delay(d),s/veh	55.6	0.3	0.4	55.9	57.9	75.0	197.6	58.1	61.0	76.5	56.5	56.8
LnGrp LOS	E	A	A	E	F	F	F	E	E	E	E	E
Approach Vol, veh/h		1556			3731			424			162	
Approach Delay, s/veh		4.6			63.2			109.2			64.6	
Approach LOS		A			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	90.7	10.0	26.7	21.3	92.0	8.7	28.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	17.7	2.0	7.8	6.1	6.5	88.0	4.8	16.3
Green Ext Time (p_c), s	0.6	5.6	0.0	0.3	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	871	140	110	1692	60	620	620	210	80	720	1300
Future Volume (veh/h)	500	871	140	110	1692	60	620	620	210	80	720	1300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	515	898	144	113	1744	62	639	639	216	82	742	1340
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	559	2200	680	156	1544	476	495	2187	608	125	827	1096
Arrive On Green	0.33	0.87	0.87	0.05	0.31	0.31	0.15	0.34	0.34	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	515	898	144	113	1744	62	639	639	216	82	742	1340
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1362
Q Serve(g_s), s	21.8	5.3	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
Cycle Q Clear(g_c), s	21.8	5.3	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
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	559	2200	680	156	1544	476	495	2187	608	125	827	1096
V/C Ratio(X)	0.92	0.41	0.21	0.72	1.13	0.13	1.29	0.29	0.36	0.65	0.90	1.22
Avail Cap(c_a), veh/h	586	2200	680	218	1544	476	495	2187	608	164	848	1112
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	5.7	5.5	70.6	52.0	27.1	64.1	35.8	32.4	71.3	55.5	23.0
Incr Delay (d2), s/veh	17.6	0.5	0.6	3.3	67.0	0.6	145.1	0.0	0.1	2.2	11.7	108.7
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	11.5	2.4	1.0	2.4	30.9	1.6	20.2	4.8	6.3	1.7	16.3	26.7
LnGrp Delay(d),s/veh	67.1	6.2	6.1	73.9	119.0	27.6	209.2	35.9	32.5	73.5	67.2	131.7
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	E	F
Approach Vol, veh/h		1557			1919			1494			2164	
Approach Delay, s/veh		26.3			113.4			109.5			107.4	
Approach LOS		C			F			F			F	

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	11.1	71.5	26.0	41.4	30.6	52.0	9.7	57.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	6.9	7.3	23.8	32.8	23.8	48.0	5.6	16.8
Green Ext Time (p_c), s	0.0	3.9	0.0	2.3	0.3	0.0	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	91.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	20	50	140	50	70	160	1363	160	140	1432	90
Future Volume (veh/h)	60	20	50	140	50	70	160	1363	160	140	1432	90
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	64	21	53	149	53	74	170	1450	170	149	1523	96
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	131	43	143	230	88	123	150	1289	394	658	2819	873
Arrive On Green	0.10	0.10	0.10	0.13	0.13	0.13	0.09	0.26	0.26	0.37	0.56	0.56
Sat Flow, veh/h	1339	439	1468	1757	676	943	1757	5036	1537	1757	5036	1560
Grp Volume(v), veh/h	85	0	53	149	0	127	170	1450	170	149	1523	96
Grp Sat Flow(s),veh/h/ln	1778	0	1468	1757	0	1619	1757	1679	1537	1757	1679	1560
Q Serve(g_s), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.6	4.3
Cycle Q Clear(g_c), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.6	4.3
Prop In Lane	0.75		1.00	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	0	143	230	0	211	150	1289	394	658	2819	873
V/C Ratio(X)	0.49	0.00	0.37	0.65	0.00	0.60	1.13	1.12	0.43	0.23	0.54	0.11
Avail Cap(c_a), veh/h	450	0	372	468	0	432	150	1289	394	658	2819	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	0.0	63.4	61.9	0.0	61.5	68.6	55.8	46.7	32.1	20.8	15.5
Incr Delay (d2), s/veh	0.8	0.0	0.6	1.2	0.0	1.0	114.0	66.7	3.4	0.1	0.7	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	3.4	0.0	2.1	6.0	0.0	5.0	11.0	25.8	6.3	4.2	13.5	1.9
LnGrp Delay(d),s/veh	64.9	0.0	63.9	63.1	0.0	62.5	182.6	122.5	50.1	32.1	21.6	15.7
LnGrp LOS	E		E	E		E	F	F	D	C	C	B
Approach Vol, veh/h		138			276			1790			1768	
Approach Delay, s/veh		64.6			62.8			121.4			22.2	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.6	44.8		18.8	17.0	90.4		23.8
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 13	* 40		40.0
Max Q Clear Time (g_c+I1), s	10.7	40.4		8.8	14.8	30.6		14.1
Green Ext Time (p_c), s	0.1	0.0		0.3	0.0	5.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	71.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	10	90	10	10	10	421	1443	10	20	1382	260
Future Volume (veh/h)	60	10	90	10	10	10	421	1443	10	20	1382	260
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		0.93	1.00		0.92	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	45	0	119	10	10	10	439	1503	10	21	1440	271
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	164	0	274	38	38	38	273	1094	481	675	2615	491
Arrive On Green	0.09	0.00	0.09	0.07	0.07	0.07	0.08	0.31	0.31	0.38	0.62	0.62
Sat Flow, veh/h	1757	0	2929	553	553	553	3408	3505	1543	1757	4245	797
Grp Volume(v), veh/h	45	0	119	30	0	0	439	1503	10	21	1138	573
Grp Sat Flow(s),veh/h/ln	1757	0	1464	1659	0	0	1704	1752	1543	1757	1679	1685
Q Serve(g_s), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.5	29.7
Cycle Q Clear(g_c), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.5	29.7
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	164	0	274	115	0	0	273	1094	481	675	2069	1038
V/C Ratio(X)	0.27	0.00	0.44	0.26	0.00	0.00	1.61	1.37	0.02	0.03	0.55	0.55
Avail Cap(c_a), veh/h	445	0	742	443	0	0	273	1094	481	675	2069	1038
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	0.0	64.3	66.2	0.0	0.0	69.0	51.6	35.7	28.8	16.7	16.7
Incr Delay (d2), s/veh	0.9	0.0	1.1	1.2	0.0	0.0	291.0	174.3	0.1	0.0	1.1	2.1
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	1.8	0.0	2.4	1.2	0.0	0.0	16.7	49.1	0.3	0.5	13.9	14.3
LnGrp Delay(d),s/veh	64.2	0.0	65.3	67.4	0.0	0.0	360.0	225.9	35.8	28.8	17.8	18.9
LnGrp LOS	E		E	E			F	F	D	C	B	B
Approach Vol, veh/h		164			30			1952			1732	
Approach Delay, s/veh		65.0			67.4			255.1			18.3	
Approach LOS		E			E			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	63.6	52.8		19.0	18.0	98.4		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.0	38.8		40.0
Max Q Clear Time (g_c+I1), s	3.1	48.8		7.8	14.0	31.7		4.6
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	5.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	139.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	20	10	370	10	160	30	1314	260	110	1212	20
Future Volume (veh/h)	30	20	10	370	10	160	30	1314	260	110	1212	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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	33	22	11	411	11	178	33	1460	289	122	1347	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	268	121	460	411	355	85	1838	567	816	3017	49
Arrive On Green	0.02	0.12	0.12	0.13	0.23	0.23	0.02	0.36	0.36	0.24	0.59	0.59
Sat Flow, veh/h	3408	2303	1039	3408	1752	1515	3408	5036	1555	3408	5102	83
Grp Volume(v), veh/h	33	16	17	411	11	178	33	1460	289	122	886	483
Grp Sat Flow(s),veh/h/ln	1704	1752	1589	1704	1752	1515	1704	1679	1555	1704	1679	1828
Q Serve(g_s), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	38.9	21.7	4.2	22.0	22.0
Cycle Q Clear(g_c), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	38.9	21.7	4.2	22.0	22.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	68	204	185	460	411	355	85	1838	567	816	1985	1081
V/C Ratio(X)	0.49	0.08	0.09	0.89	0.03	0.50	0.39	0.79	0.51	0.15	0.45	0.45
Avail Cap(c_a), veh/h	91	456	413	568	432	374	114	1917	592	816	1985	1081
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	72.7	59.1	59.2	63.8	44.2	49.8	72.0	42.6	37.2	45.0	17.0	17.0
Incr Delay (d2), s/veh	2.0	0.1	0.1	12.8	0.0	0.4	6.1	3.6	3.2	0.0	0.7	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	0.7	0.6	0.6	9.2	0.4	6.5	0.7	18.6	9.8	2.0	10.3	11.4
LnGrp Delay(d),s/veh	74.7	59.2	59.3	76.6	44.2	50.2	78.1	46.2	40.4	45.0	17.7	18.4
LnGrp LOS	E	E	E	E	D	D	E	D	D	D	B	B
Approach Vol, veh/h		66			600			1782			1491	
Approach Delay, s/veh		67.0			68.2			45.9			20.2	
Approach LOS		E			E			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	41.9	60.7	25.2	22.1	7.9	94.7	7.2	40.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	6.2	40.9	19.8	3.4	3.4	24.0	3.4	17.3
Green Ext Time (p_c), s	0.1	13.8	0.4	0.1	0.0	7.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	940	220	20	420	10	610	10	90	10	10	10
Future Volume (veh/h)	50	940	220	20	420	10	610	10	90	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	54	1011	237	22	452	11	754	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1266	296	70	1578	38	889	467	0	20	20	20
Arrive On Green	0.04	0.45	0.45	0.04	0.45	0.45	0.25	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	2807	656	1757	3493	85	3514	1845	0	551	551	551
Grp Volume(v), veh/h	54	630	618	22	226	237	754	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1710	1757	1752	1826	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.38	1.00		0.05	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	69	790	771	70	792	825	889	467	0	59	0	0
V/C Ratio(X)	0.78	0.80	0.80	0.31	0.29	0.29	0.85	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	123	790	771	70	792	825	1160	609	0	99	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	1.00	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	47.6	23.5	23.6	46.7	17.3	17.3	35.5	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	7.0	8.2	8.6	11.3	0.9	0.9	4.4	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	16.7	16.4	0.8	4.1	4.3	10.4	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	54.7	31.7	32.2	57.9	18.2	18.1	39.9	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	D	C	C	E	B	B	D			D		
Approach Vol, veh/h		1302			485			754			33	
Approach Delay, s/veh		32.9			20.0			39.9			50.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	51.1		8.6	9.9	51.2		30.3
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.2	33.1		4.0	5.0	10.2		22.4
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	3.9		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1052	130	30	2052	70	580	80	30	50	30	90
Future Volume (veh/h)	100	1052	130	30	2052	70	580	80	30	50	30	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	105	1107	0	32	2160	74	611	84	32	53	32	95
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1293	403	499	2607	807	446	313	112	481	259	221
Arrive On Green	0.03	0.26	0.00	0.28	0.52	0.52	0.13	0.13	0.13	0.14	0.15	0.15
Sat Flow, veh/h	1757	5036	1568	1757	5036	1559	3408	2493	889	3408	1752	1495
Grp Volume(v), veh/h	105	1107	0	32	2160	74	611	57	59	53	32	95
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1559	1704	1752	1630	1704	1752	1495
Q Serve(g_s), s	4.0	27.2	0.0	1.7	47.1	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Cycle Q Clear(g_c), s	4.0	27.2	0.0	1.7	47.1	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	54	1293	403	499	2607	807	446	220	205	481	259	221
V/C Ratio(X)	1.94	0.86	0.00	0.06	0.83	0.09	1.37	0.26	0.29	0.11	0.12	0.43
Avail Cap(c_a), veh/h	54	1763	549	499	2607	807	446	607	564	481	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	46.0	0.0	33.9	26.5	4.1	56.5	51.4	51.6	48.7	48.1	50.4
Incr Delay (d2), s/veh	484.2	7.4	0.0	0.0	3.2	0.2	180.7	0.2	0.3	0.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	13.5	0.0	0.8	22.6	0.7	19.2	1.9	1.9	0.8	1.0	3.1
LnGrp Delay(d),s/veh	547.2	53.5	0.0	34.0	29.7	4.3	237.2	51.6	51.8	48.7	48.2	50.9
LnGrp LOS	F	D		C	C	A	F	D	D	D	D	D
Approach Vol, veh/h		1212			2266			727			180	
Approach Delay, s/veh		96.2			28.9			207.6			49.8	
Approach LOS		F			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	42.9	39.4	22.0	25.7	9.0	73.3	24.9	22.8
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	5.0	* 46	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	3.7	29.2	19.0	9.5	6.0	49.1	3.8	6.2
Green Ext Time (p_c), s	0.0	4.2	0.0	0.4	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	78.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	490	240	260	460	170	150	330	120	20	210	60
Future Volume (veh/h)	60	490	240	260	460	170	150	330	120	20	210	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	75	612	300	325	575	212	188	412	150	25	262	75
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	96	750	368	341	1175	432	220	566	203	71	488	136
Arrive On Green	0.05	0.33	0.33	0.19	0.47	0.47	0.06	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1757	2258	1107	1757	2493	917	3408	2502	899	3408	2681	748
Grp Volume(v), veh/h	75	475	437	325	404	383	188	287	275	25	169	168
Grp Sat Flow(s),veh/h/ln	1757	1752	1613	1757	1752	1658	1704	1752	1648	1704	1752	1676
Q Serve(g_s), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Cycle Q Clear(g_c), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Prop In Lane	1.00		0.69	1.00		0.55	1.00		0.55	1.00		0.45
Lane Grp Cap(c), veh/h	96	582	536	341	826	781	220	396	373	71	319	305
V/C Ratio(X)	0.78	0.82	0.82	0.95	0.49	0.49	0.85	0.72	0.74	0.35	0.53	0.55
Avail Cap(c_a), veh/h	189	716	659	341	867	820	220	654	615	155	620	593
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	41.1	27.0	27.0	35.1	16.0	16.0	40.8	31.6	31.7	42.6	32.6	32.8
Incr Delay (d2), s/veh	12.5	6.0	6.5	36.5	0.4	0.5	26.1	2.5	2.9	3.0	1.4	1.5
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	2.1	11.5	10.7	11.3	6.8	6.5	3.1	6.7	6.5	0.3	3.8	3.9
LnGrp Delay(d),s/veh	53.7	33.0	33.5	71.6	16.5	16.5	66.9	34.1	34.6	45.5	34.0	34.3
LnGrp LOS	D	C	C	E	B	B	E	C	C	D	C	C
Approach Vol, veh/h		987			1112			750			362	
Approach Delay, s/veh		34.8			32.6			42.5			34.9	
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	6.3	25.9	21.6	34.3	10.2	22.1	9.3	46.5
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	2.6	15.7	18.1	23.9	6.8	10.0	5.7	16.0
Green Ext Time (p_c), s	0.0	2.8	0.0	4.5	0.0	1.6	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	720	870	211	270	370	190	1452	121	230	992	20
Future Volume (veh/h)	250	720	870	211	270	370	190	1452	121	230	992	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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	269	774	935	227	290	398	204	1561	130	247	1067	22
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	834	2051	171	252	1255	386
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.24	0.43	0.43	0.07	0.25	0.25
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4728	393	3408	5036	1549
Grp Volume(v), veh/h	269	774	935	227	290	398	204	1108	583	247	1067	22
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1764	1704	1679	1549
Q Serve(g_s), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.3	36.3	9.4	26.2	1.3
Cycle Q Clear(g_c), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.3	36.3	9.4	26.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	834	1457	765	252	1255	386
V/C Ratio(X)	1.29	0.62	1.70	1.22	0.24	0.75	0.24	0.76	0.76	0.98	0.85	0.06
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	834	1457	765	252	1519	467
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	0.55	0.55	0.55	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	34.8	42.0	58.1	30.2	37.4	39.4	31.1	31.1	60.1	46.5	30.2
Incr Delay (d2), s/veh	162.6	0.7	322.6	136.5	0.0	5.3	0.0	2.1	4.0	51.2	7.4	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	16.9	11.6	69.0	13.8	3.7	13.4	3.0	17.2	18.5	6.2	13.0	0.6
LnGrp Delay(d),s/veh	219.9	35.6	364.6	194.6	30.2	42.7	39.5	33.2	35.1	111.3	53.9	30.5
LnGrp LOS	F	D	F	F	C	D	D	C	D	F	D	C
Approach Vol, veh/h		1978			915			1895			1336	
Approach Delay, s/veh		216.2			76.4			34.5			64.1	
Approach LOS		F			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	62.4	18.8	51.0	37.8	38.4	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.6	41.2	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.4	38.3	15.8	48.0	8.3	28.2	17.4	31.9
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.1	4.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	105.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	890	260	0	790	1072	0	0	0	583	0	170
Future Volume (veh/h)	0	890	260	0	790	1072	0	0	0	583	0	170
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	937	274	0	832	0				614	0	179
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1429	417	0	1293	578				831	0	382
Arrive On Green	0.00	0.37	0.37	0.00	0.37	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	4039	1130	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	812	399	0	832	0				614	0	179
Grp Sat Flow(s),veh/h/ln	0	1679	1645	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.5	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Cycle Q Clear(g_c), s	0.0	5.5	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Prop In Lane	0.00		0.69	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1238	607	0	1293	578				831	0	382
V/C Ratio(X)	0.00	0.66	0.66	0.00	0.64	0.00				0.74	0.00	0.47
Avail Cap(c_a), veh/h	0	3716	1821	0	3879	1735				1823	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.1	7.1	0.0	7.1	0.0				9.5	0.0	8.7
Incr Delay (d2), s/veh	0.0	0.2	0.5	0.0	0.2	0.0				0.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	0.0	2.6	0.0				2.1	0.0	1.2
LnGrp Delay(d),s/veh	0.0	7.3	7.6	0.0	7.3	0.0				9.9	0.0	9.1
LnGrp LOS		A	A		A					A		A
Approach Vol, veh/h		1211			832						793	
Approach Delay, s/veh		7.4			7.3						9.7	
Approach LOS		A			A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.4		11.7		15.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		7.5		6.5		7.3		
Green Ext Time (p_c), s		1.8		0.1		1.3		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1253	0	0	1772	1003	90	0	542	0	0	0
Future Volume (veh/h)	220	1253	0	0	1772	1003	90	0	542	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1279	0	0	1808	1023	92	0	553			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	245	3676	0	0	2817	1489	351	0	531			
Arrive On Green	0.14	0.73	0.00	0.00	0.37	0.37	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2662	1757	0	2656			
Grp Volume(v), veh/h	224	1279	0	0	1808	1023	92	0	553			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1331	1757	0	1328			
Q Serve(g_s), s	18.9	13.8	0.0	0.0	44.3	48.5	6.6	0.0	30.0			
Cycle Q Clear(g_c), s	18.9	13.8	0.0	0.0	44.3	48.5	6.6	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	245	3676	0	0	2817	1489	351	0	531			
V/C Ratio(X)	0.91	0.35	0.00	0.00	0.64	0.69	0.26	0.00	1.04			
Avail Cap(c_a), veh/h	351	3676	0	0	2817	1489	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	0.68	0.68	1.00	0.00	1.00			
Uniform Delay (d), s/veh	63.7	7.3	0.0	0.0	34.5	35.8	50.7	0.0	60.0			
Incr Delay (d2), s/veh	15.1	0.2	0.0	0.0	0.8	1.8	0.1	0.0	50.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.2	6.3	0.0	0.0	20.8	18.3	3.2	0.0	14.7			
LnGrp Delay(d),s/veh	78.8	7.5	0.0	0.0	35.3	37.6	50.8	0.0	110.1			
LnGrp LOS	E	A			D	D	D		F			
Approach Vol, veh/h		1503			2831			645				
Approach Delay, s/veh		18.2			36.1			101.7				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			25.6	89.3		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		15.8			20.9	50.5		32.0
Green Ext Time (p_c), s		2.3			0.0	3.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	1255	180	240	2135	310	220	120	200	260	130	280
Future Volume (veh/h)	270	1255	180	240	2135	310	220	120	200	260	130	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	281	1307	188	250	2224	323	229	125	208	271	135	292
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	325	1461	210	799	3052	906	274	332	285	341	375	323
Arrive On Green	0.10	0.33	0.33	0.47	0.96	0.96	0.08	0.19	0.19	0.10	0.21	0.21
Sat Flow, veh/h	3408	4431	637	3408	6346	1558	3408	1752	1507	3408	1752	1512
Grp Volume(v), veh/h	281	990	505	250	2224	323	229	125	208	271	135	292
Grp Sat Flow(s),veh/h/ln	1704	1679	1711	1704	1586	1558	1704	1752	1507	1704	1752	1512
Q Serve(g_s), s	12.2	42.1	42.1	6.8	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Cycle Q Clear(g_c), s	12.2	42.1	42.1	6.8	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	1107	564	799	3052	906	274	332	285	341	375	323
V/C Ratio(X)	0.87	0.89	0.89	0.31	0.73	0.36	0.83	0.38	0.73	0.80	0.36	0.90
Avail Cap(c_a), veh/h	359	1276	650	799	3052	906	348	456	392	382	473	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	47.8	47.8	32.3	1.6	0.4	68.0	53.1	57.2	66.0	50.2	57.4
Incr Delay (d2), s/veh	14.6	9.7	16.9	0.0	0.6	0.5	10.8	0.3	2.3	8.8	0.2	17.6
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	6.4	21.0	22.6	3.2	2.3	0.3	5.1	4.5	8.3	5.9	4.8	13.4
LnGrp Delay(d),s/veh	81.5	57.5	64.7	32.3	2.3	0.8	78.7	53.4	59.5	74.8	50.4	75.0
LnGrp LOS	F	E	E	C	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1776			2797			562			698	
Approach Delay, s/veh		63.4			4.8			66.0			70.2	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.2	55.4	16.3	37.1	18.5	78.1	20.0	33.4
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	17.8	* 57	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	8.8	44.1	11.9	30.2	14.2	8.7	13.7	21.5
Green Ext Time (p_c), s	0.3	5.4	0.1	1.4	0.1	21.5	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1375	160	310	2215	150	360	60	260	220	70	220
Future Volume (veh/h)	190	1375	160	310	2215	150	360	60	260	220	70	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	198	1432	167	323	2307	156	375	0	312	229	73	229
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
Arrive On Green	0.33	0.85	0.85	0.36	0.86	0.86	0.11	0.00	0.13	0.14	0.15	0.15
Sat Flow, veh/h	3408	5036	1557	1757	5036	1557	3514	0	2972	3408	1845	1497
Grp Volume(v), veh/h	198	1432	167	323	2307	156	375	0	312	229	73	229
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1757	1679	1557	1757	0	1486	1704	1845	1497
Q Serve(g_s), s	6.6	15.2	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Cycle Q Clear(g_c), s	6.6	15.2	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
V/C Ratio(X)	0.35	0.67	0.20	1.01	1.07	0.18	0.98	0.00	0.83	0.49	0.26	0.99
Avail Cap(c_a), veh/h	558	2131	829	319	2159	882	382	0	818	467	492	399
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	7.8	4.5	47.8	10.7	3.6	66.7	0.0	33.6	59.9	55.9	32.8
Incr Delay (d2), s/veh	0.1	1.2	0.4	18.7	32.0	0.0	41.1	0.0	1.9	0.3	0.2	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.9	1.1	14.7	33.6	0.7	9.9	0.0	4.7	4.4	2.7	8.5
LnGrp Delay(d),s/veh	44.5	9.0	4.9	66.6	42.7	3.7	107.8	0.0	35.5	60.2	56.0	58.4
LnGrp LOS	D	A	A	F	F	A	F		D	E	E	E
Approach Vol, veh/h		1797			2786			687			531	
Approach Delay, s/veh		12.6			43.3			75.0			58.8	
Approach LOS		B			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	69.5	21.0	28.1	30.6	70.3	25.6	23.6
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 27	46.6	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	29.2	17.2	18.0	18.5	8.6	66.3	11.3	13.1
Green Ext Time (p_c), s	0.0	7.1	0.0	0.7	0.0	0.0	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1995	130	110	2575	80	160	40	90	200	50	210
Future Volume (veh/h)	80	1995	130	110	2575	80	160	40	90	200	50	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	85	2122	138	117	2739	85	170	43	96	213	53	223
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2255	828	250	2858	88	150	68	152	211	330	269
Arrive On Green	0.01	0.15	0.15	0.28	1.00	1.00	0.09	0.14	0.14	0.12	0.18	0.18
Sat Flow, veh/h	1757	5036	1550	1757	5014	154	1757	490	1095	1757	1845	1504
Grp Volume(v), veh/h	85	2122	138	117	1824	1000	170	0	139	213	53	223
Grp Sat Flow(s),veh/h/ln	1757	1679	1550	1757	1679	1811	1757	0	1586	1757	1845	1504
Q Serve(g_s), s	4.0	62.6	4.6	8.2	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Cycle Q Clear(g_c), s	4.0	62.6	4.6	8.2	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	47	2255	828	250	1913	1032	150	0	220	211	330	269
V/C Ratio(X)	1.81	0.94	0.17	0.47	0.95	0.97	1.13	0.00	0.63	1.01	0.16	0.83
Avail Cap(c_a), veh/h	47	2270	833	250	1913	1032	150	0	359	211	480	391
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.19	0.19	0.19	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.3	62.0	10.6	49.0	0.0	0.0	68.6	0.0	61.0	66.0	52.1	59.4
Incr Delay (d2), s/veh	416.9	6.8	0.3	0.1	3.2	6.9	114.0	0.0	1.1	64.7	0.1	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	30.6	2.0	4.0	0.8	2.0	11.0	0.0	5.5	12.5	1.9	9.4
LnGrp Delay(d),s/veh	491.2	68.7	10.9	49.1	3.2	6.9	182.6	0.0	62.1	130.7	52.2	65.7
LnGrp LOS	F	E	B	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2345			2941			309			489	
Approach Delay, s/veh		80.7			6.3			128.4			92.6	
Approach LOS		F			A			F			F	

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	27.3	73.2	17.0	32.5	9.0	91.5	23.0	26.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	10.5	* 68	* 13	39.0	4.0	26.0	18.0	* 34
Max Q Clear Time (g_c+I1), s	10.2	64.6	14.8	23.4	6.0	2.0	20.0	14.4
Green Ext Time (p_c), s	0.0	2.6	0.0	0.5	0.0	18.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1325	280	270	1675	100	190	240	160	40	420	570
Future Volume (veh/h)	180	1325	280	270	1675	100	190	240	160	40	420	570
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	1489	315	303	1882	112	213	270	180	45	472	640
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	411	2058	641	355	1904	588	223	1110	492	59	504	613
Arrive On Green	0.24	0.82	0.82	0.10	0.38	0.38	0.07	0.32	0.32	0.03	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	202	1489	315	303	1882	112	213	270	180	45	472	640
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	7.7	19.8	6.9	13.1	55.7	6.0	9.3	8.6	13.4	3.8	37.5	41.0
Cycle Q Clear(g_c), s	7.7	19.8	6.9	13.1	55.7	6.0	9.3	8.6	13.4	3.8	37.5	41.0
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	411	2058	641	355	1904	588	223	1110	492	59	504	613
V/C Ratio(X)	0.49	0.72	0.49	0.85	0.99	0.19	0.96	0.24	0.37	0.76	0.94	1.04
Avail Cap(c_a), veh/h	489	2058	641	920	1904	588	223	1110	492	85	504	613
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	9.9	5.1	66.1	46.3	21.7	69.9	37.9	39.6	71.8	53.2	45.4
Incr Delay (d2), s/veh	0.2	1.0	1.2	2.3	18.1	0.7	47.6	0.0	0.2	11.0	24.8	48.3
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	3.6	9.0	3.1	6.3	29.0	2.7	5.9	4.1	5.8	2.0	22.6	25.7
LnGrp Delay(d),s/veh	53.1	10.9	6.3	68.4	64.4	22.4	117.5	38.0	39.8	82.8	78.0	93.7
LnGrp LOS	D	B	A	E	E	C	F	D	D	F	E	F
Approach Vol, veh/h		2006			2297			663			1157	
Approach Delay, s/veh		14.4			62.9			64.0			86.9	
Approach LOS		B			E			E			F	

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	19.8	67.6	15.6	47.0	24.4	63.0	9.3	53.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 22	* 57	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	15.1	21.8	11.3	43.0	9.7	57.7	5.8	15.4
Green Ext Time (p_c), s	0.5	6.5	0.0	0.0	0.2	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	1643	260	50	1443	50	380	40	180	390	130	202
Future Volume (veh/h)	42	1643	260	50	1443	50	380	40	180	390	130	202
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	46	1786	283	54	1568	54	413	43	196	424	141	220
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	1834	287	61	1710	59	461	54	247	377	512	422
Arrive On Green	0.10	0.42	0.42	0.03	0.34	0.34	0.14	0.19	0.19	0.21	0.28	0.28
Sat Flow, veh/h	1757	4364	684	1757	4990	172	3408	280	1278	1757	1845	1520
Grp Volume(v), veh/h	46	1369	700	54	1055	567	413	0	239	424	141	220
Grp Sat Flow(s),veh/h/ln	1757	1679	1690	1757	1679	1805	1704	0	1559	1757	1845	1520
Q Serve(g_s), s	3.6	59.9	61.4	4.6	45.2	45.2	17.9	0.0	21.9	32.2	9.0	13.9
Cycle Q Clear(g_c), s	3.6	59.9	61.4	4.6	45.2	45.2	17.9	0.0	21.9	32.2	9.0	13.9
Prop In Lane	1.00		0.40	1.00		0.10	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	171	1411	710	61	1151	619	461	0	301	377	512	422
V/C Ratio(X)	0.27	0.97	0.99	0.89	0.92	0.92	0.90	0.00	0.79	1.12	0.28	0.52
Avail Cap(c_a), veh/h	171	1411	710	61	1247	670	563	0	385	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	42.6	43.0	72.1	47.2	47.2	63.8	0.0	57.7	58.9	42.4	26.4
Incr Delay (d2), s/veh	0.3	17.9	30.3	74.4	12.8	20.7	13.2	0.0	6.5	84.5	0.1	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	1.8	31.3	34.6	3.5	23.0	26.1	9.3	0.0	10.0	24.5	4.6	5.9
LnGrp Delay(d),s/veh	63.0	60.5	73.4	146.5	60.1	67.9	77.0	0.0	64.2	143.4	42.5	26.8
LnGrp LOS	E	E	E	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2115			1676			652			785	
Approach Delay, s/veh		64.8			65.5			72.3			92.6	
Approach LOS		E			E			E			F	

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	9.4	69.4	24.5	46.7	21.0	57.8	37.2	34.0
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	6.6	63.4	19.9	15.9	5.6	47.2	34.2	23.9
Green Ext Time (p_c), s	0.0	0.0	0.4	0.8	0.0	4.2	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	70.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1820	70	70	1370	128	150	21	300	117	21	73
Future Volume (veh/h)	43	1820	70	70	1370	128	150	21	300	117	21	73
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	48	2022	78	78	1522	142	167	23	333	130	23	81
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	62	2245	86	346	2927	273	304	440	361	190	34	99
Arrive On Green	0.04	0.45	0.45	0.20	0.63	0.63	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	4968	191	1757	4678	436	1264	1845	1515	638	143	414
Grp Volume(v), veh/h	48	1364	736	78	1092	572	167	23	333	234	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1802	1757	1679	1757	1264	1845	1515	1195	0	0
Q Serve(g_s), s	4.1	56.3	56.7	5.6	27.1	27.1	0.0	1.4	32.2	26.4	0.0	0.0
Cycle Q Clear(g_c), s	4.1	56.3	56.7	5.6	27.1	27.1	22.4	1.4	32.2	27.8	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.25	1.00		1.00	0.56		0.35
Lane Grp Cap(c), veh/h	62	1517	814	346	2101	1099	304	440	361	322	0	0
V/C Ratio(X)	0.77	0.90	0.90	0.23	0.52	0.52	0.55	0.05	0.92	0.73	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	937	346	2101	1099	366	530	435	381	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.8	38.0	38.1	50.6	15.6	15.6	52.0	44.1	55.8	54.1	0.0	0.0
Incr Delay (d2), s/veh	7.5	8.9	15.3	0.1	0.9	1.8	0.6	0.0	20.9	4.2	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	2.1	27.8	31.7	2.7	12.7	13.6	6.4	0.7	15.5	9.5	0.0	0.0
LnGrp Delay(d),s/veh	79.2	46.9	53.4	50.7	16.5	17.3	52.6	44.1	76.6	58.3	0.0	0.0
LnGrp LOS	E	D	D	D	B	B	D	D	E	E		
Approach Vol, veh/h		2148			1742			523			234	
Approach Delay, s/veh		49.8			18.3			67.5			58.3	
Approach LOS		D			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	35.6	73.8		40.7	9.5	99.9		40.7
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	7.6	58.7		34.2	6.1	29.1		29.8
Green Ext Time (p_c), s	0.0	9.0		0.8	0.1	1.3		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	1612	172	550	1042	510	383	1020	590	770	970	183
Future Volume (veh/h)	383	1612	172	550	1042	510	383	1020	590	770	970	183
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	407	1715	183	585	1109	543	407	1085	628	819	1032	195
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	456	1343	413	386	1240	671	409	1277	1013	704	1712	738
Arrive On Green	0.13	0.27	0.27	0.04	0.08	0.08	0.12	0.25	0.25	0.21	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2726	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	407	1715	183	585	1109	543	407	1085	628	819	1032	195
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1363	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	17.6	40.0	10.7	17.0	32.7	18.2	17.9	30.7	11.0	31.0	25.5	11.3
Cycle Q Clear(g_c), s	17.6	40.0	10.7	17.0	32.7	18.2	17.9	30.7	11.0	31.0	25.5	11.3
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	456	1343	413	386	1240	671	409	1277	1013	704	1712	738
V/C Ratio(X)	0.89	1.28	0.44	1.51	0.89	0.81	1.00	0.85	0.62	1.16	0.60	0.26
Avail Cap(c_a), veh/h	591	1343	413	386	1240	671	409	1578	1177	704	1712	738
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	63.9	55.0	24.2	72.2	67.0	25.2	66.0	53.3	38.9	59.5	41.1	23.8
Incr Delay (d2), s/veh	11.4	130.6	0.3	239.6	5.4	4.3	43.1	7.2	2.9	75.4	0.1	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	9.0	34.8	4.6	20.9	15.9	7.3	10.9	15.1	4.5	21.9	11.9	4.9
LnGrp Delay(d),s/veh	75.3	185.6	24.5	311.8	72.4	29.4	109.1	60.5	41.8	135.0	41.2	23.8
LnGrp LOS	E	F	C	F	E	C	F	E	D	F	D	C
Approach Vol, veh/h		2305			2237			2120			2046	
Approach Delay, s/veh		153.3			124.5			64.3			77.1	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	46.0	24.0	57.0	26.1	42.9	37.0	44.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	19.9	27.5	19.6	34.7	33.0	32.7
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8	0.4	0.0	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	106.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	2552	320	70	1602	60	200	40	170	110	60	330
Future Volume (veh/h)	120	2552	320	70	1602	60	200	40	170	110	60	330
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	125	2658	333	73	1669	62	208	42	177	115	62	344
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	2595	881	71	2408	89	115	419	344	136	442	363
Arrive On Green	0.03	0.17	0.17	0.08	0.97	0.97	0.07	0.23	0.23	0.08	0.24	0.24
Sat Flow, veh/h	1757	5036	1511	1757	4982	185	1757	1845	1514	1757	1845	1516
Grp Volume(v), veh/h	125	2658	333	73	1124	607	208	42	177	115	62	344
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1810	1757	1845	1514	1757	1845	1516
Q Serve(g_s), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Cycle Q Clear(g_c), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	2595	881	71	1622	875	115	419	344	136	442	363
V/C Ratio(X)	0.84	1.02	0.38	1.02	0.69	0.69	1.81	0.10	0.51	0.85	0.14	0.95
Avail Cap(c_a), veh/h	704	2595	881	71	1622	875	115	453	371	141	480	394
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	62.2	14.6	68.9	1.4	1.4	70.1	45.8	37.1	68.3	44.9	56.1
Incr Delay (d2), s/veh	0.5	13.1	0.1	96.7	1.8	3.3	397.6	0.0	0.4	32.9	0.1	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	39.1	6.9	4.8	1.9	2.4	17.4	1.4	5.5	6.0	2.0	17.1
LnGrp Delay(d),s/veh	72.4	75.3	14.7	165.9	3.2	4.7	467.7	45.9	37.5	101.2	45.0	86.4
LnGrp LOS	E	F	B	F	A	A	F	D	D	F	D	F
Approach Vol, veh/h		3116			1804			427			521	
Approach Delay, s/veh		68.7			10.2			247.9			84.7	
Approach LOS		E			B			F			F	

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	83.3	14.0	40.6	16.9	78.5	15.8	38.8
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	8.1	79.3	11.8	35.5	12.6	7.1	11.7	15.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	6.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	65.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2522	290	550	1462	40	180	90	370	280	150	60
Future Volume (veh/h)	70	2522	290	550	1462	40	180	90	370	280	150	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	72	2600	299	567	1507	41	186	93	381	289	155	62
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	657	1871	578	631	1772	48	229	397	343	279	610	234
Arrive On Green	0.39	0.74	0.74	0.06	0.12	0.12	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1555	3408	5036	137	3408	1752	1514	3408	2470	946
Grp Volume(v), veh/h	72	2600	299	567	1005	543	186	93	381	289	108	109
Grp Sat Flow(s),veh/h/ln	1704	1679	1555	1704	1679	1816	1704	1752	1514	1704	1752	1664
Q Serve(g_s), s	2.0	55.7	12.0	24.8	44.0	44.0	8.1	6.5	34.0	12.3	7.4	7.9
Cycle Q Clear(g_c), s	2.0	55.7	12.0	24.8	44.0	44.0	8.1	6.5	34.0	12.3	7.4	7.9
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	657	1871	578	631	1181	639	229	397	343	279	433	411
V/C Ratio(X)	0.11	1.39	0.52	0.90	0.85	0.85	0.81	0.23	1.11	1.03	0.25	0.27
Avail Cap(c_a), veh/h	657	1871	578	1370	1775	960	232	397	343	279	433	411
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	19.3	13.7	69.0	62.4	62.4	69.0	47.4	58.0	68.8	45.3	45.5
Incr Delay (d2), s/veh	0.0	177.0	1.6	1.0	4.1	7.2	17.9	0.1	81.7	62.9	0.1	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	1.0	55.6	5.3	11.8	21.2	23.5	4.4	3.2	22.0	8.2	3.6	3.6
LnGrp Delay(d),s/veh	37.8	196.3	15.2	70.0	66.5	69.6	86.9	47.5	139.7	131.8	45.5	45.7
LnGrp LOS	D	F	B	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		2971			2115			660			506	
Approach Delay, s/veh		174.3			68.2			111.9			94.8	
Approach LOS		F			E			F			F	

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	32.0	61.7	14.3	42.0	34.9	58.8	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	26.8	57.7	10.1	9.9	4.0	46.0	14.3	36.0
Green Ext Time (p_c), s	1.0	0.0	0.0	0.7	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1070	1952	570	270	1022	80	300	700	260	190	610	820
Future Volume (veh/h)	1070	1952	570	270	1022	80	300	700	260	190	610	820
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1138	2077	606	287	1087	85	319	745	277	202	649	872
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
Arrive On Green	0.32	0.49	0.49	0.09	0.24	0.24	0.05	0.23	0.23	0.06	0.22	0.22
Sat Flow, veh/h	3408	5036	1558	3408	5036	1549	3408	6346	1547	3408	3505	2722
Grp Volume(v), veh/h	1138	2077	606	287	1087	85	319	745	277	202	649	872
Grp Sat Flow(s),veh/h/ln	1704	1679	1558	1704	1679	1549	1704	1586	1547	1704	1752	1361
Q Serve(g_s), s	48.4	54.2	36.3	12.5	31.3	5.5	8.2	15.5	22.3	8.9	26.5	0.0
Cycle Q Clear(g_c), s	48.4	54.2	36.3	12.5	31.3	5.5	8.2	15.5	22.3	8.9	26.5	0.0
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	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
V/C Ratio(X)	1.03	0.85	0.80	0.92	0.89	0.23	1.71	0.52	0.56	0.97	0.83	0.58
Avail Cap(c_a), veh/h	1100	2444	756	314	1222	376	186	1523	516	209	872	1567
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	33.8	17.7	67.5	54.9	31.3	70.9	51.0	42.6	70.2	55.7	22.7
Incr Delay (d2), s/veh	19.2	0.4	0.9	29.5	8.1	0.1	342.2	0.1	0.7	52.2	5.7	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	25.7	25.1	15.7	7.2	15.4	2.4	12.7	6.8	9.7	5.7	13.5	11.9
LnGrp Delay(d),s/veh	70.0	34.2	18.6	97.0	63.0	31.4	413.1	51.1	43.3	122.4	61.4	23.0
LnGrp LOS	F	C	B	F	E	C	F	D	D	F	E	C
Approach Vol, veh/h		3821			1459			1341			1723	
Approach Delay, s/veh		42.4			67.8			135.6			49.2	
Approach LOS		D			E			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	18.0	78.8	14.2	39.0	54.4	42.4	13.4	39.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 14	70.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.5	56.2	10.2	28.5	50.4	33.3	10.9	24.3
Green Ext Time (p_c), s	0.0	9.3	0.0	3.3	0.0	1.4	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	63.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	20	120	230	40	190	70	1303	200	250	1632	50
Future Volume (veh/h)	170	20	120	230	40	190	70	1303	200	250	1632	50
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		0.95	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	175	21	124	237	41	196	72	1343	206	258	1682	52
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	236	28	224	328	50	240	70	1182	360	506	2503	775
Arrive On Green	0.15	0.15	0.15	0.19	0.19	0.19	0.04	0.23	0.23	0.29	0.50	0.50
Sat Flow, veh/h	1577	189	1496	1757	269	1287	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	196	0	124	237	0	237	72	1343	206	258	1682	52
Grp Sat Flow(s),veh/h/ln	1766	0	1496	1757	0	1556	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.8	2.6
Cycle Q Clear(g_c), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.8	2.6
Prop In Lane	0.89		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	224	328	0	290	70	1182	360	506	2503	775
V/C Ratio(X)	0.74	0.00	0.55	0.72	0.00	0.82	1.02	1.14	0.57	0.51	0.67	0.07
Avail Cap(c_a), veh/h	447	0	379	468	0	415	70	1182	360	506	2503	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	59.1	57.4	0.0	58.5	72.0	57.4	50.7	44.6	28.5	19.6
Incr Delay (d2), s/veh	1.6	0.0	0.8	1.3	0.0	5.5	114.3	72.2	6.5	0.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	4.8	9.3	0.0	9.9	5.1	24.2	8.2	9.0	17.8	1.2
LnGrp Delay(d),s/veh	62.6	0.0	59.9	58.6	0.0	64.0	186.7	129.6	57.2	45.0	29.9	19.8
LnGrp LOS	E		E	E		E	F	F	E	D	C	B
Approach Vol, veh/h		320			474			1621			1992	
Approach Delay, s/veh		61.5			61.3			122.9			31.6	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	49.6	41.6		26.6	10.2	81.0		32.2
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 18	* 35		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	20.4	37.2		17.9	8.0	39.8		23.9
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	4.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	70.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	10	461	10	10	10	171	1323	10	30	1712	100
Future Volume (veh/h)	280	10	461	10	10	10	171	1323	10	30	1712	100
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		0.96	1.00		0.92	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	196	0	581	10	10	10	176	1364	10	31	1765	103
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	387	0	667	38	38	38	114	1916	849	39	2605	152
Arrive On Green	0.22	0.00	0.22	0.07	0.07	0.07	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1757	0	3026	553	553	553	3408	3505	1554	1757	4861	283
Grp Volume(v), veh/h	196	0	581	30	0	0	176	1364	10	31	1218	650
Grp Sat Flow(s),veh/h/ln	1757	0	1513	1659	0	0	1704	1752	1554	1757	1679	1787
Q Serve(g_s), s	14.7	0.0	27.8	2.6	0.0	0.0	5.0	43.3	0.4	2.6	39.6	39.8
Cycle Q Clear(g_c), s	14.7	0.0	27.8	2.6	0.0	0.0	5.0	43.3	0.4	2.6	39.6	39.8
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	387	0	667	115	0	0	114	1916	849	39	1799	958
V/C Ratio(X)	0.51	0.00	0.87	0.26	0.00	0.00	1.55	0.71	0.01	0.79	0.68	0.68
Avail Cap(c_a), veh/h	445	0	766	443	0	0	114	1916	849	47	1799	958
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	56.4	66.2	0.0	0.0	72.5	25.2	15.5	73.0	25.4	25.4
Incr Delay (d2), s/veh	1.0	0.0	9.7	1.2	0.0	0.0	285.8	2.3	0.0	51.7	2.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	12.5	1.2	0.0	0.0	6.9	21.4	0.2	1.8	18.8	20.5
LnGrp Delay(d),s/veh	52.3	0.0	66.1	67.4	0.0	0.0	358.3	27.5	15.5	124.7	27.4	29.3
LnGrp LOS	D		E	E			F	C	B	F	C	C
Approach Vol, veh/h		777			30			1550			1899	
Approach Delay, s/veh		62.6			67.4			65.0			29.6	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	88.0		38.1	11.0	86.4		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.0	45.8		40.0
Max Q Clear Time (g_c+I1), s	4.6	45.3		29.8	7.0	41.8		4.6
Green Ext Time (p_c), s	0.0	1.2		2.1	0.0	3.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	290	30	120	20	1284	490	220	1893	20
Future Volume (veh/h)	10	10	10	290	30	120	20	1284	490	220	1893	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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	11	11	312	32	129	22	1381	527	237	2035	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	207	169	358	376	325	686	2837	879	282	2223	24
Arrive On Green	0.01	0.12	0.12	0.10	0.21	0.21	0.20	0.56	0.56	0.08	0.43	0.43
Sat Flow, veh/h	3408	1782	1457	3408	1752	1512	3408	5036	1560	3408	5135	55
Grp Volume(v), veh/h	11	11	11	312	32	129	22	1381	527	237	1330	727
Grp Sat Flow(s),veh/h/ln	1704	1752	1487	1704	1752	1512	1704	1679	1560	1704	1679	1833
Q Serve(g_s), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.7	19.8	10.3	55.8	55.9
Cycle Q Clear(g_c), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.7	19.8	10.3	55.8	55.9
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	204	173	358	376	325	686	2837	879	282	1453	794
V/C Ratio(X)	0.33	0.05	0.06	0.87	0.09	0.40	0.03	0.49	0.60	0.84	0.92	0.92
Avail Cap(c_a), veh/h	91	456	387	427	625	539	686	2837	879	357	1524	832
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	73.8	59.0	59.0	66.1	47.1	50.6	48.1	19.7	7.6	67.8	40.0	40.0
Incr Delay (d2), s/veh	2.1	0.0	0.1	13.9	0.0	0.3	0.0	0.6	3.0	11.0	10.5	17.1
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	0.2	0.4	0.4	7.1	1.1	4.6	0.4	11.7	9.2	5.3	28.0	32.0
LnGrp Delay(d),s/veh	75.9	59.0	59.1	80.1	47.2	50.9	48.2	20.3	10.6	78.8	50.4	57.0
LnGrp LOS	E	E	E	F	D	D	D	C	B	E	D	E
Approach Vol, veh/h		33			473			1930			2294	
Approach Delay, s/veh		64.7			69.9			18.0			55.5	
Approach LOS		E			E			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	90.5	20.7	22.1	36.2	70.9	5.7	37.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	12.3	26.7	15.5	3.0	2.8	57.9	2.5	13.0
Green Ext Time (p_c), s	0.2	24.7	0.2	0.1	0.0	7.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	190	561	70	790	10	170	10	20	10	10	10
Future Volume (veh/h)	10	190	561	70	790	10	170	10	20	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	11	211	623	78	878	11	217	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	574	1002	877	99	1068	13	407	214	0	20	20	20
Arrive On Green	0.33	0.57	0.57	0.06	0.30	0.30	0.12	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	1752	1535	1757	3542	44	3514	1845	0	551	551	551
Grp Volume(v), veh/h	11	211	623	78	434	455	217	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1535	1757	1752	1834	1757	1845	0	1652	0	0
Q Serve(g_s), s	0.4	5.9	29.3	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	5.9	29.3	4.4	23.0	23.0	5.8	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	574	1002	877	99	528	553	407	214	0	59	0	0
V/C Ratio(X)	0.02	0.21	0.71	0.78	0.82	0.82	0.53	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	574	1002	877	141	613	642	1160	609	0	99	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	1.00	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	22.8	10.4	15.4	46.6	32.4	32.4	41.7	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	4.8	10.7	13.5	13.0	0.8	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	13.5	2.4	13.1	13.6	2.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	22.8	10.9	20.3	57.3	46.0	45.4	42.5	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D			D		
Approach Vol, veh/h		845			967			217			33	
Approach Delay, s/veh		18.0			46.6			42.5			50.4	
Approach LOS		B			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	63.2		8.6	38.7	36.1		16.6
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	6.4	31.3		4.0	2.4	25.0		7.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2034	570	140	582	40	100	40	10	80	70	80
Future Volume (veh/h)	40	2034	570	140	582	40	100	40	10	80	70	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	43	2211	0	152	633	43	109	43	11	87	76	87
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	2072	645	408	3123	968	105	400	97	105	254	216
Arrive On Green	0.03	0.41	0.00	0.23	0.62	0.62	0.03	0.14	0.14	0.03	0.14	0.14
Sat Flow, veh/h	1757	5036	1568	1757	5036	1560	3408	2766	673	3408	1752	1494
Grp Volume(v), veh/h	43	2211	0	152	633	43	109	26	28	87	76	87
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1560	1704	1752	1687	1704	1752	1494
Q Serve(g_s), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Cycle Q Clear(g_c), s	3.2	53.5	0.0	9.5	7.1	1.4	4.0	1.7	1.8	3.3	5.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	55	2072	645	408	3123	968	105	254	244	105	254	216
V/C Ratio(X)	0.78	1.07	0.00	0.37	0.20	0.04	1.04	0.10	0.11	0.83	0.30	0.40
Avail Cap(c_a), veh/h	68	2072	645	408	3123	968	105	539	519	105	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	42.0	10.7	9.6	63.0	48.3	48.3	62.7	49.7	50.5
Incr Delay (d2), s/veh	29.9	40.4	0.0	0.2	0.1	0.1	98.9	0.1	0.1	38.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	32.5	0.0	4.6	3.3	0.6	3.3	0.8	0.9	2.1	2.5	2.9
LnGrp Delay(d),s/veh	92.4	78.6	0.0	42.2	10.9	9.7	162.6	48.3	48.4	100.9	49.9	50.9
LnGrp LOS	F	F		D	B	A	F	D	D	F	D	D
Approach Vol, veh/h		2254			828			163			250	
Approach Delay, s/veh		78.9			16.6			124.7			68.0	
Approach LOS		E			B			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.2	59.5	9.0	25.3	9.1	86.6	9.0	25.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	11.5	55.5	6.0	8.9	5.2	9.1	5.3	3.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	2.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	65.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	390	131	160	380	60	210	200	300	190	350	90
Future Volume (veh/h)	50	390	131	160	380	60	210	200	300	190	350	90
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	54	424	142	174	413	65	228	217	326	207	380	98
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	80	691	229	154	943	147	299	504	438	290	783	199
Arrive On Green	0.05	0.27	0.27	0.09	0.31	0.31	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	1757	2566	849	1757	3025	472	3408	1752	1521	3408	2749	699
Grp Volume(v), veh/h	54	288	278	174	238	240	228	217	326	207	240	238
Grp Sat Flow(s),veh/h/ln	1757	1752	1663	1757	1752	1745	1704	1752	1521	1704	1752	1696
Q Serve(g_s), s	2.2	10.6	10.9	6.5	8.0	8.1	4.8	7.5	14.4	4.4	8.4	8.6
Cycle Q Clear(g_c), s	2.2	10.6	10.9	6.5	8.0	8.1	4.8	7.5	14.4	4.4	8.4	8.6
Prop In Lane	1.00		0.51	1.00		0.27	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	80	472	448	154	546	544	299	504	438	290	499	483
V/C Ratio(X)	0.68	0.61	0.62	1.13	0.44	0.44	0.76	0.43	0.74	0.71	0.48	0.49
Avail Cap(c_a), veh/h	135	852	809	154	871	868	299	734	637	299	734	710
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	34.8	23.7	23.7	33.8	20.3	20.3	33.0	21.4	23.9	33.0	21.9	22.0
Incr Delay (d2), s/veh	9.7	1.3	1.4	110.9	0.5	0.6	10.9	0.6	2.7	7.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.3	5.1	7.9	3.9	4.0	2.7	3.7	6.3	2.4	4.2	4.1
LnGrp Delay(d),s/veh	44.5	24.9	25.2	144.6	20.8	20.9	43.9	22.0	26.6	40.5	22.6	22.8
LnGrp LOS	D	C	C	F	C	C	D	C	C	D	C	C
Approach Vol, veh/h		620			652			771			685	
Approach Delay, s/veh		26.7			53.9			30.4			28.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	27.3	11.0	24.9	11.0	27.1	7.9	28.1
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	6.4	16.4	8.5	12.9	6.8	10.6	4.2	10.1
Green Ext Time (p_c), s	0.0	2.7	0.0	3.3	0.0	2.4	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	190	100	131	780	170	720	722	111	440	1564	220
Future Volume (veh/h)	40	190	100	131	780	170	720	722	111	440	1564	220
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	43	207	109	142	848	185	783	785	121	478	1700	239
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	205	1240	550	105	1021	443	2024	3456	528	414	1511	466
Arrive On Green	0.12	0.35	0.35	0.06	0.29	0.29	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1522	3408	4396	672	3408	5036	1552
Grp Volume(v), veh/h	43	207	109	142	848	185	783	598	308	478	1700	239
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1522	1704	1679	1711	1704	1679	1552
Q Serve(g_s), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Cycle Q Clear(g_c), s	2.9	5.3	4.3	7.8	29.4	17.8	15.7	6.0	6.1	15.8	39.0	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	205	1240	550	105	1021	443	2024	2639	1345	414	1511	466
V/C Ratio(X)	0.21	0.17	0.20	1.35	0.83	0.42	0.39	0.23	0.23	1.15	1.13	0.51
Avail Cap(c_a), veh/h	205	1240	550	105	1286	558	2024	2639	1345	414	1511	466
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	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	28.8	13.4	61.1	43.1	72.1	13.9	3.6	3.6	57.1	45.5	37.6
Incr Delay (d2), s/veh	2.3	0.3	0.8	206.4	3.1	0.2	0.0	0.2	0.3	93.4	65.6	4.0
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	1.5	2.6	2.0	9.8	14.7	7.5	7.4	2.8	2.9	12.8	27.2	7.6
LnGrp Delay(d),s/veh	54.3	29.1	14.2	267.5	46.2	72.3	14.0	3.8	3.9	150.5	111.1	41.6
LnGrp LOS	D	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		359			1175			1689			2417	
Approach Delay, s/veh		27.6			77.0			8.5			112.0	
Approach LOS		C			E			A			F	

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	20.0	110.0	12.0	51.0	85.0	45.0	20.1	42.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.8	* 39	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.1	9.8	7.3	17.7	41.0	4.9	31.4
Green Ext Time (p_c), s	0.0	4.5	0.0	1.1	0.0	0.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	68.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	540	80	0	680	313	0	0	0	1164	0	390
Future Volume (veh/h)	0	540	80	0	680	313	0	0	0	1164	0	390
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	600	89	0	756	0				1293	0	433
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1316	193	0	1039	465				1425	0	655
Arrive On Green	0.00	0.30	0.30	0.00	0.30	0.00				0.42	0.00	0.42
Sat Flow, veh/h	0	4604	650	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	452	237	0	756	0				1293	0	433
Grp Sat Flow(s),veh/h/ln	0	1679	1730	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	4.0	4.1	0.0	7.1	0.0				13.1	0.0	8.2
Cycle Q Clear(g_c), s	0.0	4.0	4.1	0.0	7.1	0.0				13.1	0.0	8.2
Prop In Lane	0.00		0.38	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	995	513	0	1039	465				1425	0	655
V/C Ratio(X)	0.00	0.45	0.46	0.00	0.73	0.00				0.91	0.00	0.66
Avail Cap(c_a), veh/h	0	2200	1134	0	2297	1028				2354	0	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	10.5	0.0	11.6	0.0				10.0	0.0	8.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.4	0.0				2.0	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	0.0	3.4	0.0				6.5	0.0	3.6
LnGrp Delay(d),s/veh	0.0	10.6	10.8	0.0	12.0	0.0				12.1	0.0	9.0
LnGrp LOS		B	B		B					B		A
Approach Vol, veh/h		689			756						1726	
Approach Delay, s/veh		10.7			12.0						11.3	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.3		20.5		16.3		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		6.1		15.1		9.1		
Green Ext Time (p_c), s		0.9		0.3		1.1		

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1634	0	0	863	453	70	0	1204	0	0	0
Future Volume (veh/h)	80	1634	0	0	863	453	70	0	1204	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1685	0	0	890	467	72	0	1241			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	102	2292	0	0	1831	960	826	0	1267			
Arrive On Green	0.06	0.46	0.00	0.00	0.12	0.12	0.47	0.00	0.47			
Sat Flow, veh/h	1757	5202	0	0	5202	2640	1757	0	2696			
Grp Volume(v), veh/h	82	1685	0	0	890	467	72	0	1241			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1320	1757	0	1348			
Q Serve(g_s), s	6.5	38.4	0.0	0.0	23.1	23.1	3.2	0.0	63.3			
Cycle Q Clear(g_c), s	6.5	38.4	0.0	0.0	23.1	23.1	3.2	0.0	63.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	102	2292	0	0	1831	960	826	0	1267			
V/C Ratio(X)	0.81	0.74	0.00	0.00	0.49	0.49	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2292	0	0	1831	960	926	0	1421			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.63	0.63	0.00	0.00	0.81	0.81	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.2	31.2	0.0	0.0	49.4	49.4	20.5	0.0	36.4			
Incr Delay (d2), s/veh	4.4	1.4	0.0	0.0	0.8	1.4	0.0	0.0	17.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	18.1	0.0	0.0	10.9	8.7	1.5	0.0	26.6			
LnGrp Delay(d),s/veh	69.5	32.6	0.0	0.0	50.1	50.8	20.5	0.0	54.2			
LnGrp LOS	E	C			D	D	C		D			
Approach Vol, veh/h		1767			1357			1313				
Approach Delay, s/veh		34.3			50.4			52.4				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.1			12.8	56.3		70.9
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		40.4			8.5	25.1		65.3
Green Ext Time (p_c), s		3.1			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	2588	130	100	1086	200	130	40	100	90	40	80
Future Volume (veh/h)	130	2588	130	100	1086	200	130	40	100	90	40	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	138	2753	138	106	1155	213	138	43	106	96	43	85
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1438	3148	155	122	1535	433	185	259	221	127	219	185
Arrive On Green	0.28	0.43	0.43	0.01	0.08	0.08	0.05	0.15	0.15	0.04	0.12	0.12
Sat Flow, veh/h	3408	4911	242	3408	6346	1549	3408	1752	1495	3408	1752	1485
Grp Volume(v), veh/h	138	1866	1025	106	1155	213	138	43	106	96	43	85
Grp Sat Flow(s),veh/h/ln	1704	1679	1796	1704	1586	1549	1704	1752	1495	1704	1752	1485
Q Serve(g_s), s	4.2	70.8	73.7	4.3	24.9	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Cycle Q Clear(g_c), s	4.2	70.8	73.7	4.3	24.9	11.3	5.6	3.0	9.1	3.9	3.1	7.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1438	2152	1151	122	1535	433	185	259	221	127	219	185
V/C Ratio(X)	0.10	0.87	0.89	0.87	0.75	0.49	0.75	0.17	0.48	0.76	0.20	0.46
Avail Cap(c_a), veh/h	1438	2152	1151	122	3010	793	236	488	416	127	432	366
HCM Platoon Ratio	0.67	0.67	0.67	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	34.5	35.4	68.9	60.3	35.3	65.3	52.1	54.7	66.8	55.0	56.9
Incr Delay (d2), s/veh	0.0	2.3	5.0	36.2	2.7	3.1	6.4	0.1	0.6	20.8	0.2	0.7
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	33.5	38.2	2.7	11.3	5.2	2.8	1.5	3.8	2.2	1.5	3.1
LnGrp Delay(d),s/veh	30.5	36.8	40.4	105.1	63.0	38.4	71.6	52.2	55.3	87.6	55.1	57.5
LnGrp LOS	C	D	D	F	E	D	E	D	E	F	E	E
Approach Vol, veh/h		3029			1474			287			224	
Approach Delay, s/veh		37.8			62.5			62.7			69.9	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	95.7	12.6	22.5	65.1	39.9	9.4	25.7
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.3	75.7	7.6	9.4	6.2	26.9	5.9	11.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	6.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2368	190	110	1086	190	110	30	170	110	30	70
Future Volume (veh/h)	160	2368	190	110	1086	190	110	30	170	110	30	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.94	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	170	2519	202	117	1155	202	117	0	202	117	32	74
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1403	3241	1067	118	1441	500	141	0	329	122	198	158
Arrive On Green	0.82	1.00	1.00	0.02	0.09	0.09	0.04	0.00	0.11	0.04	0.11	0.11
Sat Flow, veh/h	3408	5036	1561	1757	5036	1552	3514	0	2956	3408	1845	1475
Grp Volume(v), veh/h	170	2519	202	117	1155	202	117	0	202	117	32	74
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1552	1757	0	1478	1704	1845	1475
Q Serve(g_s), s	1.4	0.0	0.0	9.3	31.5	12.0	4.6	0.0	7.8	4.8	2.2	3.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	9.3	31.5	12.0	4.6	0.0	7.8	4.8	2.2	3.0
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	1403	3241	1067	118	1441	500	141	0	329	122	198	158
V/C Ratio(X)	0.12	0.78	0.19	0.99	0.80	0.40	0.83	0.00	0.61	0.96	0.16	0.47
Avail Cap(c_a), veh/h	1403	3241	1067	118	2266	754	141	0	857	122	527	421
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	0.80	0.80	0.80	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	0.0	0.0	68.4	59.5	48.3	66.7	0.0	43.2	67.4	56.8	11.9
Incr Delay (d2), s/veh	0.0	0.5	0.1	71.3	3.8	1.9	31.2	0.0	0.7	68.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.0	6.9	15.2	5.4	2.9	0.0	3.2	3.4	1.1	1.2
LnGrp Delay(d),s/veh	7.4	0.5	0.1	139.7	63.3	50.2	97.9	0.0	43.9	136.2	56.9	12.7
LnGrp LOS	A	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		2891			1474			319			223	
Approach Delay, s/veh		0.9			67.6			63.7			83.9	
Approach LOS		A			E			E			F	

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	13.6	96.1	10.3	20.0	63.6	46.1	10.0	20.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.6	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.3	2.0	6.6	5.0	3.4	33.5	6.8	9.8
Green Ext Time (p_c), s	0.0	22.7	0.0	0.2	0.2	6.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2448	100	70	1296	140	70	20	100	60	10	70
Future Volume (veh/h)	140	2448	100	70	1296	140	70	20	100	60	10	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	151	2632	108	75	1394	151	75	22	108	65	11	75
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	172	2464	830	316	2658	288	79	32	155	82	238	192
Arrive On Green	0.20	0.98	0.98	0.36	1.00	1.00	0.05	0.12	0.12	0.05	0.13	0.13
Sat Flow, veh/h	1757	5036	1552	1757	4595	498	1757	260	1275	1757	1845	1488
Grp Volume(v), veh/h	151	2632	108	75	1018	527	75	0	130	65	11	75
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1736	1757	0	1535	1757	1845	1488
Q Serve(g_s), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Cycle Q Clear(g_c), s	11.7	68.5	0.1	4.2	0.0	0.0	6.0	0.0	11.4	5.1	0.7	6.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	172	2464	830	316	1942	1004	79	0	187	82	238	192
V/C Ratio(X)	0.88	1.07	0.13	0.24	0.52	0.52	0.95	0.00	0.70	0.79	0.05	0.39
Avail Cap(c_a), veh/h	238	2464	830	316	1942	1004	79	0	400	113	514	414
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.77	0.77	0.77	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	1.5	0.2	38.1	0.0	0.0	66.7	0.0	59.0	66.0	53.4	55.9
Incr Delay (d2), s/veh	8.6	34.8	0.1	0.1	0.8	1.5	83.0	0.0	1.8	15.4	0.0	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	6.0	18.9	0.1	2.0	0.2	0.4	4.7	0.0	4.9	2.8	0.4	2.7
LnGrp Delay(d),s/veh	64.1	36.3	0.4	38.2	0.8	1.5	149.7	0.0	60.8	81.4	53.4	56.4
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2891			1620			205			151	
Approach Delay, s/veh		36.5			2.7			93.3			66.9	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.2	74.5	10.5	23.8	18.7	87.0	11.6	22.7
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	6.1	* 69	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	6.2	70.5	8.0	8.5	13.7	2.0	7.1	13.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.1	9.9	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	700	1678	150	151	1026	50	180	440	251	51	190	180
Future Volume (veh/h)	700	1678	150	151	1026	50	180	440	251	51	190	180
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	753	1804	161	162	1103	54	194	473	270	55	204	194
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1144	2654	826	208	1195	367	252	790	349	70	330	802
Arrive On Green	0.67	1.00	1.00	0.06	0.24	0.24	0.07	0.23	0.23	0.04	0.18	0.18
Sat Flow, veh/h	3408	5036	1568	3408	5036	1548	3408	3505	1547	1757	1845	1542
Grp Volume(v), veh/h	753	1804	161	162	1103	54	194	473	270	55	204	194
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1548	1704	1752	1547	1757	1845	1542
Q Serve(g_s), s	18.2	0.0	0.0	6.6	29.9	3.3	7.8	16.9	22.9	4.3	14.3	0.0
Cycle Q Clear(g_c), s	18.2	0.0	0.0	6.6	29.9	3.3	7.8	16.9	22.9	4.3	14.3	0.0
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	1144	2654	826	208	1195	367	252	790	349	70	330	802
V/C Ratio(X)	0.66	0.68	0.19	0.78	0.92	0.15	0.77	0.60	0.77	0.78	0.62	0.24
Avail Cap(c_a), veh/h	1144	2654	826	214	1241	382	252	1054	465	114	540	978
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	0.0	64.8	52.1	30.4	63.6	48.5	50.9	66.6	53.1	18.8
Incr Delay (d2), s/veh	0.5	0.6	0.2	14.6	13.1	0.8	12.2	0.3	3.9	6.9	0.7	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	8.4	0.2	0.1	3.5	15.3	1.5	4.1	8.2	10.2	2.2	7.4	4.1
LnGrp Delay(d),s/veh	18.8	0.6	0.2	79.4	65.2	31.3	75.9	48.8	54.7	73.5	53.8	18.9
LnGrp LOS	B	A	A	E	E	C	E	D	D	E	D	B
Approach Vol, veh/h		2718			1319			937			453	
Approach Delay, s/veh		5.6			65.6			56.1			41.2	
Approach LOS		A			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	80.1	16.2	31.0	53.3	39.5	9.8	37.4
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	8.6	2.0	9.8	16.3	20.2	31.9	6.3	24.9
Green Ext Time (p_c), s	0.0	11.0	0.0	0.9	1.3	1.3	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1495	370	190	1084	330	130	90	60	60	30	53
Future Volume (veh/h)	145	1495	370	190	1084	330	130	90	60	60	30	53
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	158	1625	402	207	1178	359	141	98	65	65	33	58
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	532	2148	524	228	1317	401	184	158	105	82	274	222
Arrive On Green	0.30	0.54	0.54	0.13	0.35	0.35	0.05	0.16	0.16	0.05	0.15	0.15
Sat Flow, veh/h	1757	4009	977	1757	3783	1152	3408	1015	673	1757	1845	1495
Grp Volume(v), veh/h	158	1357	670	207	1045	492	141	0	163	65	33	58
Grp Sat Flow(s),veh/h/ln	1757	1679	1629	1757	1679	1578	1704	0	1689	1757	1845	1495
Q Serve(g_s), s	10.3	47.2	48.7	17.4	44.2	44.2	6.1	0.0	13.5	5.5	2.3	2.9
Cycle Q Clear(g_c), s	10.3	47.2	48.7	17.4	44.2	44.2	6.1	0.0	13.5	5.5	2.3	2.9
Prop In Lane	1.00		0.60	1.00		0.73	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	532	1799	873	228	1169	550	184	0	263	82	274	222
V/C Ratio(X)	0.30	0.75	0.77	0.91	0.89	0.89	0.77	0.00	0.62	0.79	0.12	0.26
Avail Cap(c_a), veh/h	532	1799	873	247	1419	667	186	0	430	94	467	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	27.1	27.4	64.4	46.3	46.3	70.0	0.0	59.2	70.8	55.4	17.5
Incr Delay (d2), s/veh	0.1	3.0	6.4	31.1	10.6	19.7	15.4	0.0	0.9	28.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	22.6	23.3	10.4	22.2	22.3	3.3	0.0	6.4	3.3	1.2	1.2
LnGrp Delay(d),s/veh	40.2	30.1	33.9	95.4	56.9	65.9	85.4	0.0	60.1	99.0	55.5	17.7
LnGrp LOS	D	C	C	F	E	E	F		E	F	E	B
Approach Vol, veh/h		2185			1744			304			156	
Approach Delay, s/veh		32.0			64.0			71.8			59.6	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.7	86.8	12.3	27.2	51.8	58.6	11.2	28.3
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	19.4	50.7	8.1	4.9	12.3	46.2	7.5	15.5
Green Ext Time (p_c), s	0.0	6.9	0.0	0.2	0.1	6.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1300	180	280	1420	134	50	12	60	49	11	24
Future Volume (veh/h)	75	1300	180	280	1420	134	50	12	60	49	11	24
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.95	0.98		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	84	1461	202	315	1596	151	56	13	67	55	12	27
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	103	1584	219	688	3275	309	225	257	208	144	35	57
Arrive On Green	0.06	0.36	0.36	0.39	0.70	0.70	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1757	4446	614	1757	4672	441	1328	1845	1492	757	249	405
Grp Volume(v), veh/h	84	1103	560	315	1146	601	56	13	67	94	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1757	1328	1845	1492	1411	0	0
Q Serve(g_s), s	7.1	47.2	47.3	19.9	23.3	23.3	0.0	0.9	6.1	7.6	0.0	0.0
Cycle Q Clear(g_c), s	7.1	47.2	47.3	19.9	23.3	23.3	6.3	0.9	6.1	9.0	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.25	1.00		1.00	0.59		0.29
Lane Grp Cap(c), veh/h	103	1196	607	688	2353	1231	225	257	208	235	0	0
V/C Ratio(X)	0.81	0.92	0.92	0.46	0.49	0.49	0.25	0.05	0.32	0.40	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	688	2353	1231	386	481	389	403	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.8	46.3	46.3	33.8	10.2	10.2	58.3	55.9	58.2	59.3	0.0	0.0
Incr Delay (d2), s/veh	12.5	13.0	21.9	0.2	0.7	1.4	0.2	0.0	0.3	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	24.1	25.9	9.7	10.9	11.7	2.1	0.5	2.5	3.6	0.0	0.0
LnGrp Delay(d),s/veh	82.2	59.3	68.2	34.0	10.9	11.6	58.5	56.0	58.5	59.7	0.0	0.0
LnGrp LOS	F	E	E	C	B	B	E	E	E	E		
Approach Vol, veh/h		1747			2062			136			94	
Approach Delay, s/veh		63.2			14.6			58.2			59.7	
Approach LOS		E			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	64.7	59.4		25.8	13.0	111.1		25.8
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	21.9	49.3		8.3	9.1	25.3		11.0
Green Ext Time (p_c), s	0.4	4.1		0.2	0.0	8.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	933	323	720	1604	640	175	660	440	560	1050	345
Future Volume (veh/h)	183	933	323	720	1604	640	175	660	440	560	1050	345
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	199	1014	351	783	1743	696	190	717	478	609	1141	375
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	517	1268	390	454	1175	636	238	1544	1214	505	1939	837
Arrive On Green	0.15	0.25	0.25	0.09	0.16	0.16	0.07	0.31	0.31	0.15	0.39	0.39
Sat Flow, veh/h	3408	5036	1549	3408	5036	2724	3408	5036	2760	3408	5036	1556
Grp Volume(v), veh/h	199	1014	351	783	1743	696	190	717	478	609	1141	375
Grp Sat Flow(s),veh/h/ln	1704	1679	1549	1704	1679	1362	1704	1679	1380	1704	1679	1556
Q Serve(g_s), s	7.9	28.3	32.9	20.0	35.0	35.0	8.2	17.3	9.2	22.2	27.0	5.2
Cycle Q Clear(g_c), s	7.9	28.3	32.9	20.0	35.0	35.0	8.2	17.3	9.2	22.2	27.0	5.2
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	517	1268	390	454	1175	636	238	1544	1214	505	1939	837
V/C Ratio(X)	0.38	0.80	0.90	1.72	1.48	1.09	0.80	0.46	0.39	1.21	0.59	0.45
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	505	1939	837
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	57.3	52.6	54.3	68.3	63.3	63.3	68.7	42.0	10.9	63.9	36.7	8.6
Incr Delay (d2), s/veh	0.2	3.0	20.6	326.2	217.9	45.5	2.3	1.0	1.0	94.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	13.5	16.3	30.0	40.0	17.2	4.0	8.2	3.6	17.1	12.6	5.6
LnGrp Delay(d),s/veh	57.5	55.6	74.9	394.5	281.2	108.8	71.1	43.0	11.9	158.0	36.8	8.7
LnGrp LOS	E	E	E	F	F	F	E	D	B	F	D	A
Approach Vol, veh/h		1564			3222			1385			2125	
Approach Delay, s/veh		60.2			271.5			36.1			66.6	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	43.8	16.5	63.8	28.8	41.0	28.2	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	34.9	10.2	29.0	9.9	37.0	24.2	19.3
Green Ext Time (p_c), s	0.0	2.4	0.2	5.5	0.3	0.0	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	139.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	1283	210	160	2594	150	140	70	60	30	30	120
Future Volume (veh/h)	310	1283	210	160	2594	150	140	70	60	30	30	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	337	1395	228	174	2820	163	152	76	65	33	33	130
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	354	1528	534	631	2303	131	91	322	262	42	270	219
Arrive On Green	0.40	0.61	0.61	0.72	0.95	0.95	0.05	0.17	0.17	0.02	0.15	0.15
Sat Flow, veh/h	1757	5036	1492	1757	4874	276	1757	1845	1503	1757	1845	1495
Grp Volume(v), veh/h	337	1395	228	174	1925	1058	152	76	65	33	33	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1492	1757	1679	1792	1757	1845	1503	1757	1845	1495
Q Serve(g_s), s	27.8	36.6	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Cycle Q Clear(g_c), s	27.8	36.6	3.3	5.2	70.9	70.9	7.8	5.3	2.7	2.8	2.3	12.2
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	1528	534	631	1586	847	91	322	262	42	270	219
V/C Ratio(X)	0.95	0.91	0.43	0.28	1.21	1.25	1.66	0.24	0.25	0.78	0.12	0.59
Avail Cap(c_a), veh/h	762	2192	731	631	1586	847	91	464	378	71	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	27.7	8.8	14.3	4.1	4.1	71.1	53.3	12.3	72.8	55.6	59.9
Incr Delay (d2), s/veh	2.6	4.1	0.9	0.0	96.7	113.0	341.9	0.1	0.2	11.2	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	17.1	2.4	2.5	46.4	53.4	12.5	2.7	1.1	1.5	1.2	5.1
LnGrp Delay(d),s/veh	46.6	31.8	9.7	14.3	100.8	117.1	413.0	53.5	12.4	84.0	55.7	60.8
LnGrp LOS	D	C	A	B	F	F	F	D	B	F	E	E
Approach Vol, veh/h		1960			3157			293			196	
Approach Delay, s/veh		31.8			101.5			230.9			63.9	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.8	51.5	12.0	26.7	34.5	76.9	7.8	30.9
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 65	22.0	* 6.1	* 38
Max Q Clear Time (g_c+I1), s	7.2	38.6	9.8	14.2	29.8	72.9	4.8	7.3
Green Ext Time (p_c), s	0.2	6.9	0.0	0.3	0.4	0.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	82.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1143	180	340	2914	180	140	110	140	60	50	40
Future Volume (veh/h)	110	1143	180	340	2914	180	140	110	140	60	50	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.95	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	120	1242	196	370	3167	196	152	120	152	65	54	43
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	347	2845	881	417	2780	168	132	269	230	102	281	199
Arrive On Green	0.20	1.00	1.00	0.24	1.00	1.00	0.04	0.15	0.15	0.03	0.14	0.14
Sat Flow, veh/h	3408	5036	1560	3408	4849	293	3408	1752	1497	3408	1943	1377
Grp Volume(v), veh/h	120	1242	196	370	2170	1193	152	120	152	65	48	49
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1785	1704	1752	1497	1704	1752	1567
Q Serve(g_s), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Cycle Q Clear(g_c), s	4.5	0.0	0.0	15.7	0.0	86.0	5.8	9.3	14.3	2.8	3.6	4.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	347	2845	881	417	1925	1024	132	269	230	102	254	227
V/C Ratio(X)	0.35	0.44	0.22	0.89	1.13	1.16	1.15	0.45	0.66	0.63	0.19	0.22
Avail Cap(c_a), veh/h	347	2845	881	1518	1925	1024	132	403	344	120	397	355
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	0.0	0.0	55.7	0.0	0.0	72.1	57.7	59.8	71.9	56.4	56.6
Incr Delay (d2), s/veh	0.2	0.3	0.4	0.2	58.2	75.3	125.5	0.4	1.2	4.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.1	0.1	7.4	15.5	21.4	5.0	4.6	6.0	1.4	1.8	1.8
LnGrp Delay(d),s/veh	55.6	0.3	0.4	55.9	58.2	75.3	197.6	58.1	61.0	76.5	56.5	56.8
LnGrp LOS	E	A	A	E	F	F	F	E	E	E	E	E
Approach Vol, veh/h		1558			3733			424			162	
Approach Delay, s/veh		4.6			63.4			109.2			64.6	
Approach LOS		A			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	90.7	10.0	26.7	21.3	92.0	8.7	28.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	17.7	2.0	7.8	6.1	6.5	88.0	4.8	16.3
Green Ext Time (p_c), s	0.6	5.6	0.0	0.3	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	51.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	873	140	110	1692	60	621	620	210	80	720	1301
Future Volume (veh/h)	500	873	140	110	1692	60	621	620	210	80	720	1301
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	515	900	144	113	1744	62	640	639	216	82	742	1341
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	559	2200	680	156	1544	476	495	2187	608	125	827	1096
Arrive On Green	0.33	0.87	0.87	0.05	0.31	0.31	0.15	0.34	0.34	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	515	900	144	113	1744	62	640	639	216	82	742	1341
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1362
Q Serve(g_s), s	21.8	5.3	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
Cycle Q Clear(g_c), s	21.8	5.3	2.2	4.9	46.0	3.7	21.8	11.0	14.8	3.6	30.8	27.3
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	559	2200	680	156	1544	476	495	2187	608	125	827	1096
V/C Ratio(X)	0.92	0.41	0.21	0.72	1.13	0.13	1.29	0.29	0.36	0.65	0.90	1.22
Avail Cap(c_a), veh/h	586	2200	680	218	1544	476	495	2187	608	164	848	1112
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	5.7	5.5	70.6	52.0	27.1	64.1	35.8	32.4	71.3	55.5	23.0
Incr Delay (d2), s/veh	17.6	0.5	0.6	3.3	67.0	0.6	145.9	0.0	0.1	2.2	11.7	109.1
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	11.5	2.4	1.0	2.4	30.9	1.6	20.3	4.8	6.3	1.7	16.3	26.7
LnGrp Delay(d),s/veh	67.1	6.2	6.1	73.9	119.0	27.6	210.0	35.9	32.5	73.5	67.2	132.1
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	E	F
Approach Vol, veh/h		1559			1919			1495			2165	
Approach Delay, s/veh		26.3			113.4			109.9			107.6	
Approach LOS		C			F			F			F	

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	11.1	71.5	26.0	41.4	30.6	52.0	9.7	57.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	6.9	7.3	23.8	32.8	23.8	48.0	5.6	16.8
Green Ext Time (p_c), s	0.0	3.9	0.0	2.3	0.3	0.0	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	91.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	20	50	140	50	70	160	1365	160	140	1433	90
Future Volume (veh/h)	60	20	50	140	50	70	160	1365	160	140	1433	90
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	64	21	53	149	53	74	170	1452	170	149	1524	96
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	131	43	143	230	88	123	150	1289	394	658	2819	873
Arrive On Green	0.10	0.10	0.10	0.13	0.13	0.13	0.09	0.26	0.26	0.37	0.56	0.56
Sat Flow, veh/h	1339	439	1468	1757	676	943	1757	5036	1537	1757	5036	1560
Grp Volume(v), veh/h	85	0	53	149	0	127	170	1452	170	149	1524	96
Grp Sat Flow(s),veh/h/ln	1778	0	1468	1757	0	1619	1757	1679	1537	1757	1679	1560
Q Serve(g_s), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.7	4.3
Cycle Q Clear(g_c), s	6.8	0.0	5.1	12.1	0.0	11.1	12.8	38.4	13.9	8.7	28.7	4.3
Prop In Lane	0.75		1.00	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	0	143	230	0	211	150	1289	394	658	2819	873
V/C Ratio(X)	0.49	0.00	0.37	0.65	0.00	0.60	1.13	1.13	0.43	0.23	0.54	0.11
Avail Cap(c_a), veh/h	450	0	372	468	0	432	150	1289	394	658	2819	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	0.0	63.4	61.9	0.0	61.5	68.6	55.8	46.7	32.1	20.8	15.5
Incr Delay (d2), s/veh	0.8	0.0	0.6	1.2	0.0	1.0	114.0	67.3	3.4	0.1	0.7	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	3.4	0.0	2.1	6.0	0.0	5.0	11.0	25.8	6.3	4.2	13.5	1.9
LnGrp Delay(d),s/veh	64.9	0.0	63.9	63.1	0.0	62.5	182.6	123.1	50.1	32.1	21.6	15.7
LnGrp LOS	E		E	E		E	F	F	D	C	C	B
Approach Vol, veh/h		138			276			1792			1769	
Approach Delay, s/veh		64.6			62.8			121.9			22.2	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.6	44.8		18.8	17.0	90.4		23.8
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 13	* 40		40.0
Max Q Clear Time (g_c+I1), s	10.7	40.4		8.8	14.8	30.7		14.1
Green Ext Time (p_c), s	0.1	0.0		0.3	0.0	5.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	71.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	10	91	10	10	10	422	1445	10	20	1383	260
Future Volume (veh/h)	60	10	91	10	10	10	422	1445	10	20	1383	260
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		0.93	1.00		0.92	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	45	0	120	10	10	10	440	1505	10	21	1441	271
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	0	274	38	38	38	273	1094	481	674	2615	491
Arrive On Green	0.09	0.00	0.09	0.07	0.07	0.07	0.08	0.31	0.31	0.38	0.62	0.62
Sat Flow, veh/h	1757	0	2929	553	553	553	3408	3505	1543	1757	4245	797
Grp Volume(v), veh/h	45	0	120	30	0	0	440	1505	10	21	1139	573
Grp Sat Flow(s),veh/h/ln	1757	0	1465	1659	0	0	1704	1752	1543	1757	1679	1685
Q Serve(g_s), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.6	29.7
Cycle Q Clear(g_c), s	3.6	0.0	5.8	2.6	0.0	0.0	12.0	46.8	0.7	1.1	29.6	29.7
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	165	0	274	115	0	0	273	1094	481	674	2068	1038
V/C Ratio(X)	0.27	0.00	0.44	0.26	0.00	0.00	1.61	1.38	0.02	0.03	0.55	0.55
Avail Cap(c_a), veh/h	445	0	742	443	0	0	273	1094	481	674	2068	1038
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.2	0.0	64.2	66.2	0.0	0.0	69.0	51.6	35.7	28.8	16.7	16.8
Incr Delay (d2), s/veh	0.9	0.0	1.1	1.2	0.0	0.0	292.6	175.2	0.1	0.0	1.1	2.1
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	1.8	0.0	2.4	1.2	0.0	0.0	16.7	49.2	0.3	0.5	13.9	14.3
LnGrp Delay(d),s/veh	64.1	0.0	65.3	67.4	0.0	0.0	361.6	226.8	35.8	28.8	17.8	18.9
LnGrp LOS	E		E	E			F	F	D	C	B	B
Approach Vol, veh/h		165			30			1955			1733	
Approach Delay, s/veh		65.0			67.4			256.1			18.3	
Approach LOS		E			E			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	63.6	52.8		19.1	18.0	98.4		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.0	38.8		40.0
Max Q Clear Time (g_c+I1), s	3.1	48.8		7.8	14.0	31.7		4.6
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	5.5		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	140.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	20	10	370	10	160	30	1317	260	110	1214	20
Future Volume (veh/h)	30	20	10	370	10	160	30	1317	260	110	1214	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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	33	22	11	411	11	178	33	1463	289	122	1349	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	268	121	460	411	355	85	1839	568	815	3017	49
Arrive On Green	0.02	0.12	0.12	0.13	0.23	0.23	0.02	0.37	0.37	0.24	0.59	0.59
Sat Flow, veh/h	3408	2303	1039	3408	1752	1515	3408	5036	1555	3408	5102	83
Grp Volume(v), veh/h	33	16	17	411	11	178	33	1463	289	122	888	483
Grp Sat Flow(s),veh/h/ln	1704	1752	1589	1704	1752	1515	1704	1679	1555	1704	1679	1828
Q Serve(g_s), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	39.0	21.7	4.2	22.0	22.0
Cycle Q Clear(g_c), s	1.4	1.2	1.4	17.8	0.7	15.3	1.4	39.0	21.7	4.2	22.0	22.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	68	204	185	460	411	355	85	1839	568	815	1985	1081
V/C Ratio(X)	0.49	0.08	0.09	0.89	0.03	0.50	0.39	0.80	0.51	0.15	0.45	0.45
Avail Cap(c_a), veh/h	91	456	413	568	432	374	114	1917	592	815	1985	1081
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	72.7	59.1	59.2	63.8	44.2	49.8	72.0	42.6	37.1	45.0	17.0	17.0
Incr Delay (d2), s/veh	2.0	0.1	0.1	12.8	0.0	0.4	6.1	3.7	3.2	0.0	0.7	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	0.7	0.6	0.6	9.2	0.4	6.5	0.7	18.6	9.8	2.0	10.3	11.4
LnGrp Delay(d),s/veh	74.7	59.2	59.3	76.6	44.2	50.2	78.1	46.3	40.4	45.1	17.8	18.4
LnGrp LOS	E	E	E	E	D	D	E	D	D	D	B	B
Approach Vol, veh/h		66			600			1785			1493	
Approach Delay, s/veh		67.0			68.2			45.9			20.2	
Approach LOS		E			E			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	41.9	60.8	25.2	22.1	7.9	94.7	7.2	40.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	6.2	41.0	19.8	3.4	3.4	24.0	3.4	17.3
Green Ext Time (p_c), s	0.1	13.8	0.4	0.1	0.0	7.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	940	221	20	420	10	610	10	90	10	10	10
Future Volume (veh/h)	50	940	221	20	420	10	610	10	90	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	54	1011	238	22	452	11	754	0	0	11	11	11
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1265	297	70	1578	38	889	467	0	20	20	20
Arrive On Green	0.04	0.45	0.45	0.04	0.45	0.45	0.25	0.00	0.00	0.04	0.04	0.04
Sat Flow, veh/h	1757	2805	658	1757	3493	85	3514	1845	0	551	551	551
Grp Volume(v), veh/h	54	630	619	22	226	237	754	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1710	1757	1752	1826	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	30.8	31.1	1.2	8.1	8.2	20.4	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.38	1.00		0.05	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	69	790	771	70	792	825	889	467	0	59	0	0
V/C Ratio(X)	0.78	0.80	0.80	0.31	0.29	0.29	0.85	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	123	790	771	70	792	825	1160	609	0	99	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	1.00	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	47.6	23.5	23.6	46.7	17.3	17.3	35.5	0.0	0.0	47.4	0.0	0.0
Incr Delay (d2), s/veh	7.0	8.2	8.6	11.3	0.9	0.9	4.4	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	16.7	16.5	0.8	4.1	4.3	10.4	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	54.7	31.8	32.3	57.9	18.2	18.1	39.9	0.0	0.0	50.4	0.0	0.0
LnGrp LOS	D	C	C	E	B	B	D			D		
Approach Vol, veh/h		1303			485			754			33	
Approach Delay, s/veh		33.0			20.0			39.9			50.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	51.1		8.6	9.9	51.2		30.3
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.2	33.1		4.0	5.0	10.2		22.4
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	3.9		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1054	130	30	2054	70	580	80	30	50	30	90
Future Volume (veh/h)	100	1054	130	30	2054	70	580	80	30	50	30	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	105	1109	0	32	2162	74	611	84	32	53	32	95
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1295	403	498	2607	807	446	313	112	481	259	221
Arrive On Green	0.03	0.26	0.00	0.28	0.52	0.52	0.13	0.13	0.13	0.14	0.15	0.15
Sat Flow, veh/h	1757	5036	1568	1757	5036	1559	3408	2493	889	3408	1752	1495
Grp Volume(v), veh/h	105	1109	0	32	2162	74	611	57	59	53	32	95
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1559	1704	1752	1630	1704	1752	1495
Q Serve(g_s), s	4.0	27.3	0.0	1.7	47.2	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Cycle Q Clear(g_c), s	4.0	27.3	0.0	1.7	47.2	1.6	17.0	3.8	4.2	1.8	2.1	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	54	1295	403	498	2607	807	446	220	205	481	259	221
V/C Ratio(X)	1.94	0.86	0.00	0.06	0.83	0.09	1.37	0.26	0.29	0.11	0.12	0.43
Avail Cap(c_a), veh/h	54	1763	549	498	2607	807	446	607	564	481	539	460
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	46.0	0.0	34.0	26.5	4.1	56.5	51.4	51.6	48.7	48.1	50.4
Incr Delay (d2), s/veh	484.2	7.4	0.0	0.0	3.2	0.2	180.7	0.2	0.3	0.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	13.5	0.0	0.8	22.6	0.7	19.2	1.9	1.9	0.8	1.0	3.1
LnGrp Delay(d),s/veh	547.2	53.4	0.0	34.0	29.7	4.3	237.2	51.6	51.8	48.7	48.2	50.9
LnGrp LOS	F	D		C	C	A	F	D	D	D	D	D
Approach Vol, veh/h		1214			2268			727			180	
Approach Delay, s/veh		96.1			28.9			207.6			49.8	
Approach LOS		F			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	42.9	39.4	22.0	25.7	9.0	73.3	24.9	22.8
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	5.0	* 46	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	3.7	29.3	19.0	9.5	6.0	49.2	3.8	6.2
Green Ext Time (p_c), s	0.0	4.2	0.0	0.4	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	78.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	490	241	260	460	170	151	330	120	20	210	60
Future Volume (veh/h)	60	490	241	260	460	170	151	330	120	20	210	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	75	612	301	325	575	212	189	412	150	25	262	75
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	96	750	369	341	1175	432	220	566	203	71	488	136
Arrive On Green	0.05	0.33	0.33	0.19	0.47	0.47	0.06	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1757	2256	1109	1757	2493	917	3408	2502	899	3408	2681	748
Grp Volume(v), veh/h	75	475	438	325	404	383	189	287	275	25	169	168
Grp Sat Flow(s),veh/h/ln	1757	1752	1612	1757	1752	1658	1704	1752	1648	1704	1752	1676
Q Serve(g_s), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Cycle Q Clear(g_c), s	3.7	21.9	21.9	16.1	13.9	14.0	4.8	13.4	13.7	0.6	7.7	8.0
Prop In Lane	1.00		0.69	1.00		0.55	1.00		0.55	1.00		0.45
Lane Grp Cap(c), veh/h	96	582	536	341	826	781	220	396	373	71	319	305
V/C Ratio(X)	0.78	0.82	0.82	0.95	0.49	0.49	0.86	0.72	0.74	0.35	0.53	0.55
Avail Cap(c_a), veh/h	189	716	658	341	867	820	220	654	615	155	620	593
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	41.1	27.0	27.0	35.1	16.0	16.0	40.8	31.6	31.7	42.6	32.6	32.8
Incr Delay (d2), s/veh	12.5	6.1	6.6	36.6	0.4	0.5	26.9	2.5	2.9	3.0	1.4	1.5
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	2.1	11.5	10.7	11.3	6.8	6.5	3.1	6.7	6.5	0.3	3.8	3.9
LnGrp Delay(d),s/veh	53.7	33.0	33.5	71.8	16.5	16.5	67.8	34.1	34.6	45.6	34.0	34.3
LnGrp LOS	D	C	C	E	B	B	E	C	C	D	C	C
Approach Vol, veh/h		988			1112			751			362	
Approach Delay, s/veh		34.8			32.6			42.7			34.9	
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	6.3	25.9	21.6	34.3	10.2	22.1	9.3	46.6
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	2.6	15.7	18.1	23.9	6.8	10.0	5.7	16.0
Green Ext Time (p_c), s	0.0	2.8	0.0	4.5	0.0	1.6	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	720	870	211	270	370	190	1454	121	230	994	20
Future Volume (veh/h)	250	720	870	211	270	370	190	1454	121	230	994	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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	269	774	935	227	290	398	204	1563	130	247	1069	22
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	829	2049	170	249	1256	386
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.24	0.43	0.43	0.07	0.25	0.25
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4728	393	3408	5036	1549
Grp Volume(v), veh/h	269	774	935	227	290	398	204	1109	584	247	1069	22
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1764	1704	1679	1549
Q Serve(g_s), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.4	36.4	9.4	26.3	1.3
Cycle Q Clear(g_c), s	15.4	23.8	46.0	13.8	7.6	29.9	6.3	36.4	36.4	9.4	26.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	829	1455	765	249	1256	386
V/C Ratio(X)	1.29	0.62	1.70	1.22	0.24	0.75	0.25	0.76	0.76	0.99	0.85	0.06
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	829	1455	765	249	1519	467
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	0.55	0.55	0.55	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	34.8	42.0	58.1	30.2	37.4	39.6	31.2	31.2	60.2	46.5	30.1
Incr Delay (d2), s/veh	162.6	0.7	322.6	136.5	0.0	5.3	0.0	2.2	4.0	54.5	7.4	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	16.9	11.6	69.0	13.8	3.7	13.4	3.0	17.2	18.5	6.3	13.0	0.6
LnGrp Delay(d),s/veh	219.9	35.6	364.6	194.6	30.2	42.7	39.6	33.3	35.2	114.7	53.8	30.4
LnGrp LOS	F	D	F	F	C	D	D	C	D	F	D	C
Approach Vol, veh/h		1978			915			1897			1338	
Approach Delay, s/veh		216.2			76.4			34.6			64.7	
Approach LOS		F			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	62.4	18.8	51.0	37.6	38.4	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.5	41.3	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.4	38.4	15.8	48.0	8.3	28.3	17.4	31.9
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.1	4.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	106.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	890	260	0	790	1074	0	0	0	584	0	170
Future Volume (veh/h)	0	890	260	0	790	1074	0	0	0	584	0	170
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	937	274	0	832	0				615	0	179
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1428	416	0	1292	578				832	0	383
Arrive On Green	0.00	0.37	0.37	0.00	0.37	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	4039	1130	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	812	399	0	832	0				615	0	179
Grp Sat Flow(s),veh/h/ln	0	1679	1645	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.5	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Cycle Q Clear(g_c), s	0.0	5.5	5.5	0.0	5.3	0.0				4.5	0.0	2.6
Prop In Lane	0.00		0.69	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1238	607	0	1292	578				832	0	383
V/C Ratio(X)	0.00	0.66	0.66	0.00	0.64	0.00				0.74	0.00	0.47
Avail Cap(c_a), veh/h	0	3714	1820	0	3878	1735				1822	0	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.1	7.1	0.0	7.1	0.0				9.5	0.0	8.7
Incr Delay (d2), s/veh	0.0	0.2	0.5	0.0	0.2	0.0				0.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	0.0	2.6	0.0				2.1	0.0	1.2
LnGrp Delay(d),s/veh	0.0	7.3	7.6	0.0	7.3	0.0				9.9	0.0	9.1
LnGrp LOS		A	A		A					A		A
Approach Vol, veh/h		1211			832						794	
Approach Delay, s/veh		7.4			7.3						9.7	
Approach LOS		A			A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.4		11.7		15.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		7.5		6.5		7.3		
Green Ext Time (p_c), s		1.8		0.1		1.3		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1254	0	0	1774	1004	90	0	544	0	0	0
Future Volume (veh/h)	220	1254	0	0	1774	1004	90	0	544	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1280	0	0	1810	1024	92	0	555			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	245	3676	0	0	2817	1489	351	0	531			
Arrive On Green	0.14	0.73	0.00	0.00	0.37	0.37	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2662	1757	0	2656			
Grp Volume(v), veh/h	224	1280	0	0	1810	1024	92	0	555			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1331	1757	0	1328			
Q Serve(g_s), s	18.9	13.8	0.0	0.0	44.4	48.6	6.6	0.0	30.0			
Cycle Q Clear(g_c), s	18.9	13.8	0.0	0.0	44.4	48.6	6.6	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	245	3676	0	0	2817	1489	351	0	531			
V/C Ratio(X)	0.91	0.35	0.00	0.00	0.64	0.69	0.26	0.00	1.04			
Avail Cap(c_a), veh/h	351	3676	0	0	2817	1489	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	0.68	0.68	1.00	0.00	1.00			
Uniform Delay (d), s/veh	63.7	7.3	0.0	0.0	34.5	35.9	50.7	0.0	60.0			
Incr Delay (d2), s/veh	15.1	0.2	0.0	0.0	0.8	1.8	0.1	0.0	51.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.2	6.5	0.0	0.0	20.9	18.3	3.2	0.0	14.8			
LnGrp Delay(d),s/veh	78.8	7.5	0.0	0.0	35.3	37.6	50.8	0.0	111.2			
LnGrp LOS	E	A			D	D	D		F			
Approach Vol, veh/h		1504			2834			647				
Approach Delay, s/veh		18.1			36.2			102.6				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			25.6	89.3		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		15.8			20.9	50.6		32.0
Green Ext Time (p_c), s		2.3			0.0	3.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	1258	180	240	2138	310	220	120	200	260	130	280
Future Volume (veh/h)	270	1258	180	240	2138	310	220	120	200	260	130	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	281	1310	188	250	2227	323	229	125	208	271	135	292
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	325	1463	210	798	3052	906	274	332	285	341	375	323
Arrive On Green	0.10	0.33	0.33	0.47	0.96	0.96	0.08	0.19	0.19	0.10	0.21	0.21
Sat Flow, veh/h	3408	4432	636	3408	6346	1558	3408	1752	1507	3408	1752	1512
Grp Volume(v), veh/h	281	992	506	250	2227	323	229	125	208	271	135	292
Grp Sat Flow(s),veh/h/ln	1704	1679	1711	1704	1586	1558	1704	1752	1507	1704	1752	1512
Q Serve(g_s), s	12.2	42.2	42.2	6.9	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Cycle Q Clear(g_c), s	12.2	42.2	42.2	6.9	6.7	0.5	9.9	9.3	19.5	11.7	9.8	28.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	1108	565	798	3052	906	274	332	285	341	375	323
V/C Ratio(X)	0.87	0.90	0.90	0.31	0.73	0.36	0.83	0.38	0.73	0.80	0.36	0.90
Avail Cap(c_a), veh/h	359	1276	650	798	3052	906	348	456	392	382	473	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	47.8	47.8	32.4	1.6	0.4	68.0	53.1	57.2	66.0	50.2	57.4
Incr Delay (d2), s/veh	14.6	9.7	16.9	0.0	0.7	0.5	10.8	0.3	2.3	8.8	0.2	17.6
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	6.4	21.1	22.6	3.2	2.3	0.3	5.1	4.5	8.3	5.9	4.8	13.4
LnGrp Delay(d),s/veh	81.5	57.5	64.7	32.4	2.3	0.8	78.7	53.4	59.5	74.8	50.4	75.0
LnGrp LOS	F	E	E	C	A	A	E	D	E	E	D	E
Approach Vol, veh/h		1779			2800			562			698	
Approach Delay, s/veh		63.3			4.8			66.0			70.2	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.1	55.5	16.3	37.1	18.5	78.1	20.0	33.4
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	17.8	* 57	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	8.9	44.2	11.9	30.2	14.2	8.7	13.7	21.5
Green Ext Time (p_c), s	0.3	5.4	0.1	1.4	0.1	21.5	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1378	160	310	2218	150	360	60	260	220	70	220
Future Volume (veh/h)	190	1378	160	310	2218	150	360	60	260	220	70	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	198	1435	167	323	2310	156	375	0	312	229	73	229
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
Arrive On Green	0.33	0.85	0.85	0.36	0.86	0.86	0.11	0.00	0.13	0.14	0.15	0.15
Sat Flow, veh/h	3408	5036	1557	1757	5036	1557	3514	0	2972	3408	1845	1497
Grp Volume(v), veh/h	198	1435	167	323	2310	156	375	0	312	229	73	229
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1757	1679	1557	1757	0	1486	1704	1845	1497
Q Serve(g_s), s	6.6	15.3	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Cycle Q Clear(g_c), s	6.6	15.3	2.6	27.2	64.3	0.0	16.0	0.0	11.1	9.3	5.2	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	558	2131	829	319	2159	882	382	0	374	467	284	231
V/C Ratio(X)	0.35	0.67	0.20	1.01	1.07	0.18	0.98	0.00	0.83	0.49	0.26	0.99
Avail Cap(c_a), veh/h	558	2131	829	319	2159	882	382	0	818	467	492	399
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	7.8	4.5	47.8	10.7	3.6	66.7	0.0	33.6	59.9	55.9	32.8
Incr Delay (d2), s/veh	0.1	1.2	0.4	18.7	32.6	0.0	41.1	0.0	1.9	0.3	0.2	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.9	1.1	14.7	33.7	0.7	9.9	0.0	4.7	4.4	2.7	8.5
LnGrp Delay(d),s/veh	44.5	9.0	4.9	66.6	43.3	3.7	107.8	0.0	35.5	60.2	56.0	58.4
LnGrp LOS	D	A	A	F	F	A	F		D	E	E	E
Approach Vol, veh/h		1800			2789			687			531	
Approach Delay, s/veh		12.6			43.8			75.0			58.8	
Approach LOS		B			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	69.5	21.0	28.1	30.6	70.3	25.6	23.6
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 27	46.6	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	29.2	17.3	18.0	18.5	8.6	66.3	11.3	13.1
Green Ext Time (p_c), s	0.0	7.1	0.0	0.7	0.0	0.0	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1998	130	110	2578	80	160	40	90	200	50	210
Future Volume (veh/h)	80	1998	130	110	2578	80	160	40	90	200	50	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	85	2126	138	117	2743	85	170	43	96	213	53	223
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2256	828	249	2858	88	150	68	152	211	330	269
Arrive On Green	0.01	0.15	0.15	0.28	1.00	1.00	0.09	0.14	0.14	0.12	0.18	0.18
Sat Flow, veh/h	1757	5036	1550	1757	5015	154	1757	490	1095	1757	1845	1504
Grp Volume(v), veh/h	85	2126	138	117	1827	1001	170	0	139	213	53	223
Grp Sat Flow(s),veh/h/ln	1757	1679	1550	1757	1679	1811	1757	0	1586	1757	1845	1504
Q Serve(g_s), s	4.0	62.7	4.6	8.3	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Cycle Q Clear(g_c), s	4.0	62.7	4.6	8.3	0.0	0.0	12.8	0.0	12.4	18.0	3.6	21.4
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	47	2256	828	249	1913	1032	150	0	220	211	330	269
V/C Ratio(X)	1.81	0.94	0.17	0.47	0.95	0.97	1.13	0.00	0.63	1.01	0.16	0.83
Avail Cap(c_a), veh/h	47	2270	833	249	1913	1032	150	0	359	211	480	391
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.19	0.19	0.19	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.3	62.0	10.6	49.0	0.0	0.0	68.6	0.0	61.0	66.0	52.1	59.4
Incr Delay (d2), s/veh	416.8	6.9	0.3	0.1	3.2	7.0	114.0	0.0	1.1	64.7	0.1	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	30.7	2.0	4.0	0.9	2.0	11.0	0.0	5.5	12.5	1.9	9.4
LnGrp Delay(d),s/veh	491.1	68.9	10.9	49.1	3.2	7.0	182.6	0.0	62.1	130.7	52.2	65.7
LnGrp LOS	F	E	B	D	A	A	F		E	F	D	E
Approach Vol, veh/h		2349			2945			309			489	
Approach Delay, s/veh		80.8			6.3			128.4			92.6	
Approach LOS		F			A			F			F	

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	27.3	73.2	17.0	32.5	9.0	91.5	23.0	26.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	10.5	* 68	* 13	39.0	4.0	26.0	18.0	* 34
Max Q Clear Time (g_c+I1), s	10.3	64.7	14.8	23.4	6.0	2.0	20.0	14.4
Green Ext Time (p_c), s	0.0	2.5	0.0	0.5	0.0	18.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1328	280	271	1678	101	190	240	161	41	420	570
Future Volume (veh/h)	180	1328	280	271	1678	101	190	240	161	41	420	570
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	1492	315	304	1885	113	213	270	181	46	472	640
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	411	2056	640	356	1904	588	223	1109	492	60	504	613
Arrive On Green	0.24	0.82	0.82	0.10	0.38	0.38	0.07	0.32	0.32	0.03	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	202	1492	315	304	1885	113	213	270	181	46	472	640
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	7.7	20.0	7.0	13.2	55.8	6.1	9.3	8.6	13.5	3.9	37.5	41.0
Cycle Q Clear(g_c), s	7.7	20.0	7.0	13.2	55.8	6.1	9.3	8.6	13.5	3.9	37.5	41.0
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	411	2056	640	356	1904	588	223	1109	492	60	504	613
V/C Ratio(X)	0.49	0.73	0.49	0.85	0.99	0.19	0.96	0.24	0.37	0.77	0.94	1.04
Avail Cap(c_a), veh/h	489	2056	640	920	1904	588	223	1109	492	85	504	613
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	10.0	5.1	66.1	46.4	21.7	69.9	38.0	39.7	71.9	53.2	45.4
Incr Delay (d2), s/veh	0.2	1.0	1.2	2.3	18.4	0.7	47.6	0.0	0.2	13.2	24.8	48.3
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	3.6	9.0	3.1	6.3	29.1	2.7	5.9	4.2	5.8	2.1	22.6	25.7
LnGrp Delay(d),s/veh	53.1	11.0	6.3	68.4	64.8	22.4	117.5	38.0	39.8	85.1	78.0	93.7
LnGrp LOS	D	B	A	E	E	C	F	D	D	F	E	F
Approach Vol, veh/h		2009			2302			664			1158	
Approach Delay, s/veh		14.5			63.2			64.0			87.0	
Approach LOS		B			E			E			F	

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	19.9	67.5	15.6	47.0	24.4	63.0	9.3	53.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 22	* 57	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	15.2	22.0	11.3	43.0	9.7	57.8	5.9	15.5
Green Ext Time (p_c), s	0.5	6.5	0.0	0.0	0.2	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1645	260	50	1445	50	380	40	180	390	130	205
Future Volume (veh/h)	45	1645	260	50	1445	50	380	40	180	390	130	205
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	49	1788	283	54	1571	54	413	43	196	424	141	223
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	1834	287	61	1713	59	461	54	247	377	512	422
Arrive On Green	0.10	0.42	0.42	0.03	0.34	0.34	0.14	0.19	0.19	0.21	0.28	0.28
Sat Flow, veh/h	1757	4365	683	1757	4991	172	3408	280	1278	1757	1845	1520
Grp Volume(v), veh/h	49	1371	700	54	1057	568	413	0	239	424	141	223
Grp Sat Flow(s),veh/h/ln	1757	1679	1690	1757	1679	1805	1704	0	1559	1757	1845	1520
Q Serve(g_s), s	3.9	60.0	61.5	4.6	45.3	45.3	17.9	0.0	21.9	32.2	9.0	14.2
Cycle Q Clear(g_c), s	3.9	60.0	61.5	4.6	45.3	45.3	17.9	0.0	21.9	32.2	9.0	14.2
Prop In Lane	1.00		0.40	1.00		0.10	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	170	1411	710	61	1152	619	461	0	301	377	512	422
V/C Ratio(X)	0.29	0.97	0.99	0.89	0.92	0.92	0.90	0.00	0.79	1.12	0.28	0.53
Avail Cap(c_a), veh/h	170	1411	710	61	1247	670	563	0	385	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	42.6	43.1	72.1	47.2	47.2	63.8	0.0	57.7	58.9	42.4	26.5
Incr Delay (d2), s/veh	0.3	18.1	30.6	74.4	12.9	20.7	13.2	0.0	6.5	84.5	0.1	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	1.9	31.3	34.6	3.5	23.0	26.1	9.3	0.0	10.0	24.5	4.6	6.0
LnGrp Delay(d),s/veh	63.3	60.7	73.6	146.5	60.1	67.9	77.0	0.0	64.2	143.4	42.5	26.9
LnGrp LOS	E	E	E	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2120			1679			652			788	
Approach Delay, s/veh		65.0			65.5			72.3			92.4	
Approach LOS		E			E			E			F	

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	9.4	69.4	24.5	46.7	20.9	57.9	37.2	34.0
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	6.6	63.5	19.9	16.2	5.9	47.3	34.2	23.9
Green Ext Time (p_c), s	0.0	0.0	0.4	0.8	0.0	4.2	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	70.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1820	70	70	1370	134	150	22	300	123	22	75
Future Volume (veh/h)	45	1820	70	70	1370	134	150	22	300	123	22	75
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	50	2022	78	78	1522	149	167	24	333	137	24	83
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	64	2245	86	346	2906	284	303	440	361	191	32	96
Arrive On Green	0.04	0.45	0.45	0.20	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	4968	191	1757	4655	455	1261	1845	1516	642	136	401
Grp Volume(v), veh/h	50	1364	736	78	1097	574	167	24	333	244	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1802	1757	1679	1753	1261	1845	1516	1179	0	0
Q Serve(g_s), s	4.2	56.3	56.7	5.6	27.4	27.4	0.0	1.5	32.2	28.4	0.0	0.0
Cycle Q Clear(g_c), s	4.2	56.3	56.7	5.6	27.4	27.4	22.1	1.5	32.2	29.9	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.26	1.00		1.00	0.56		0.34
Lane Grp Cap(c), veh/h	64	1517	814	346	2096	1094	303	440	361	318	0	0
V/C Ratio(X)	0.78	0.90	0.90	0.23	0.52	0.52	0.55	0.05	0.92	0.77	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	937	346	2096	1094	364	530	435	377	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.6	38.0	38.1	50.6	15.7	15.7	51.9	44.1	55.8	55.1	0.0	0.0
Incr Delay (d2), s/veh	7.2	8.9	15.3	0.1	0.9	1.8	0.6	0.0	20.9	6.2	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	2.2	27.8	31.7	2.7	12.9	13.8	6.4	0.8	15.5	10.3	0.0	0.0
LnGrp Delay(d),s/veh	78.9	46.9	53.4	50.7	16.7	17.5	52.5	44.1	76.6	61.2	0.0	0.0
LnGrp LOS	E	D	D	D	B	B	D	D	E	E		
Approach Vol, veh/h		2150			1749			524			244	
Approach Delay, s/veh		49.8			18.5			67.4			61.2	
Approach LOS		D			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	35.6	73.8		40.7	9.7	99.6		40.7
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	7.6	58.7		34.2	6.2	29.4		31.9
Green Ext Time (p_c), s	0.0	9.0		0.8	0.1	1.1		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	385	1614	174	550	1044	510	385	1020	590	770	970	185
Future Volume (veh/h)	385	1614	174	550	1044	510	385	1020	590	770	970	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	410	1717	185	585	1111	543	410	1085	628	819	1032	197
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	459	1343	413	386	1236	669	409	1277	1013	704	1712	739
Arrive On Green	0.13	0.27	0.27	0.04	0.08	0.08	0.12	0.25	0.25	0.21	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2726	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	410	1717	185	585	1111	543	410	1085	628	819	1032	197
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1363	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	17.8	40.0	10.8	17.0	32.8	18.2	18.0	30.7	11.0	31.0	25.5	11.4
Cycle Q Clear(g_c), s	17.8	40.0	10.8	17.0	32.8	18.2	18.0	30.7	11.0	31.0	25.5	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	459	1343	413	386	1236	669	409	1277	1013	704	1712	739
V/C Ratio(X)	0.89	1.28	0.45	1.51	0.90	0.81	1.00	0.85	0.62	1.16	0.60	0.27
Avail Cap(c_a), veh/h	591	1343	413	386	1236	669	409	1578	1177	704	1712	739
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	63.8	55.0	24.2	72.2	67.1	25.2	66.0	53.3	38.9	59.5	41.1	23.7
Incr Delay (d2), s/veh	11.6	131.2	0.3	239.6	5.7	4.4	45.1	7.2	2.9	75.4	0.1	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	9.1	34.8	4.7	20.9	15.9	7.3	11.0	15.1	4.5	21.9	11.9	4.9
LnGrp Delay(d),s/veh	75.5	186.2	24.5	311.8	72.8	29.6	111.1	60.5	41.8	135.0	41.2	23.8
LnGrp LOS	E	F	C	F	E	C	F	E	D	F	D	C
Approach Vol, veh/h		2312			2239			2123			2048	
Approach Delay, s/veh		153.6			124.7			64.7			77.0	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	46.0	24.0	57.0	26.2	42.8	37.0	44.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	20.0	27.5	19.8	34.8	33.0	32.7
Green Ext Time (p_c), s	0.0	0.0	0.0	5.8	0.4	0.0	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	106.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	2554	320	70	1604	60	200	40	170	110	60	330
Future Volume (veh/h)	120	2554	320	70	1604	60	200	40	170	110	60	330
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	125	2660	333	73	1671	62	208	42	177	115	62	344
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	2595	881	71	2408	89	115	419	344	136	442	363
Arrive On Green	0.03	0.17	0.17	0.08	0.97	0.97	0.07	0.23	0.23	0.08	0.24	0.24
Sat Flow, veh/h	1757	5036	1511	1757	4982	185	1757	1845	1514	1757	1845	1516
Grp Volume(v), veh/h	125	2660	333	73	1126	607	208	42	177	115	62	344
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1810	1757	1845	1514	1757	1845	1516
Q Serve(g_s), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Cycle Q Clear(g_c), s	10.6	77.3	16.5	6.1	5.1	5.1	9.8	2.7	13.1	9.7	4.0	33.5
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	2595	881	71	1622	875	115	419	344	136	442	363
V/C Ratio(X)	0.84	1.02	0.38	1.02	0.69	0.69	1.81	0.10	0.51	0.85	0.14	0.95
Avail Cap(c_a), veh/h	704	2595	881	71	1622	875	115	453	371	141	480	394
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	62.2	14.6	68.9	1.4	1.4	70.1	45.8	37.1	68.3	44.9	56.1
Incr Delay (d2), s/veh	0.5	13.4	0.1	96.7	1.8	3.3	397.6	0.0	0.4	32.9	0.1	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	39.2	6.9	4.8	1.9	2.5	17.4	1.4	5.5	6.0	2.0	17.1
LnGrp Delay(d),s/veh	72.4	75.6	14.7	165.9	3.2	4.7	467.7	45.9	37.5	101.2	45.0	86.4
LnGrp LOS	E	F	B	F	A	A	F	D	D	F	D	F
Approach Vol, veh/h		3118			1806			427			521	
Approach Delay, s/veh		69.0			10.2			247.9			84.7	
Approach LOS		E			B			F			F	

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	83.3	14.0	40.6	16.9	78.5	15.8	38.8
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	8.1	79.3	11.8	35.5	12.6	7.1	11.7	15.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.1	6.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	65.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2524	290	550	1464	40	180	90	370	280	150	60
Future Volume (veh/h)	70	2524	290	550	1464	40	180	90	370	280	150	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	72	2602	299	567	1509	41	186	93	381	289	155	62
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	656	1871	578	631	1774	48	229	397	343	279	610	234
Arrive On Green	0.38	0.74	0.74	0.06	0.12	0.12	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1555	3408	5037	137	3408	1752	1514	3408	2470	946
Grp Volume(v), veh/h	72	2602	299	567	1006	544	186	93	381	289	108	109
Grp Sat Flow(s),veh/h/ln	1704	1679	1555	1704	1679	1816	1704	1752	1514	1704	1752	1664
Q Serve(g_s), s	2.0	55.7	12.0	24.8	44.1	44.1	8.1	6.5	34.0	12.3	7.4	7.9
Cycle Q Clear(g_c), s	2.0	55.7	12.0	24.8	44.1	44.1	8.1	6.5	34.0	12.3	7.4	7.9
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	656	1871	578	631	1183	640	229	397	343	279	433	411
V/C Ratio(X)	0.11	1.39	0.52	0.90	0.85	0.85	0.81	0.23	1.11	1.03	0.25	0.27
Avail Cap(c_a), veh/h	656	1871	578	1370	1775	960	232	397	343	279	433	411
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.49	0.49	0.49	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	19.3	13.7	69.0	62.4	62.4	69.0	47.4	58.0	68.8	45.3	45.5
Incr Delay (d2), s/veh	0.0	177.5	1.6	1.0	4.0	7.2	17.9	0.1	81.7	62.9	0.1	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	1.0	55.7	5.3	11.8	21.2	23.5	4.4	3.2	22.0	8.2	3.6	3.6
LnGrp Delay(d),s/veh	37.9	196.8	15.2	70.0	66.5	69.6	86.9	47.5	139.7	131.8	45.5	45.7
LnGrp LOS	D	F	B	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		2973			2117			660			506	
Approach Delay, s/veh		174.7			68.2			111.9			94.8	
Approach LOS		F			E			F			F	

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	32.0	61.7	14.3	42.0	34.9	58.8	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	26.8	57.7	10.1	9.9	4.0	46.1	14.3	36.0
Green Ext Time (p_c), s	1.0	0.0	0.0	0.7	0.0	6.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1071	1952	571	270	1022	80	301	700	260	190	610	821
Future Volume (veh/h)	1071	1952	571	270	1022	80	301	700	260	190	610	821
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1139	2077	607	287	1087	85	320	745	277	202	649	873
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
Arrive On Green	0.32	0.49	0.49	0.09	0.24	0.24	0.05	0.23	0.23	0.06	0.22	0.22
Sat Flow, veh/h	3408	5036	1558	3408	5036	1549	3408	6346	1547	3408	3505	2722
Grp Volume(v), veh/h	1139	2077	607	287	1087	85	320	745	277	202	649	873
Grp Sat Flow(s),veh/h/ln	1704	1679	1558	1704	1679	1549	1704	1586	1547	1704	1752	1361
Q Serve(g_s), s	48.4	54.2	36.4	12.5	31.3	5.5	8.2	15.5	22.3	8.9	26.5	0.0
Cycle Q Clear(g_c), s	48.4	54.2	36.4	12.5	31.3	5.5	8.2	15.5	22.3	8.9	26.5	0.0
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	1100	2444	756	314	1222	376	186	1430	493	209	778	1495
V/C Ratio(X)	1.04	0.85	0.80	0.92	0.89	0.23	1.72	0.52	0.56	0.97	0.83	0.58
Avail Cap(c_a), veh/h	1100	2444	756	314	1222	376	186	1523	516	209	872	1567
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	33.8	17.7	67.5	54.9	31.3	70.9	51.0	42.6	70.2	55.7	22.7
Incr Delay (d2), s/veh	19.6	0.4	0.9	29.5	8.1	0.1	344.5	0.1	0.7	52.2	5.7	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	25.7	25.1	15.7	7.2	15.4	2.4	12.8	6.8	9.7	5.7	13.5	11.9
LnGrp Delay(d),s/veh	70.4	34.2	18.6	97.0	63.0	31.4	415.4	51.1	43.3	122.4	61.4	23.1
LnGrp LOS	F	C	B	F	E	C	F	D	D	F	E	C
Approach Vol, veh/h		3823			1459			1342			1724	
Approach Delay, s/veh		42.5			67.8			136.4			49.1	
Approach LOS		D			E			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	18.0	78.8	14.2	39.0	54.4	42.4	13.4	39.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 14	70.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.5	56.2	10.2	28.5	50.4	33.3	10.9	24.3
Green Ext Time (p_c), s	0.0	9.3	0.0	3.3	0.0	1.4	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	63.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	20	120	230	40	190	70	1305	200	250	1634	50
Future Volume (veh/h)	170	20	120	230	40	190	70	1305	200	250	1634	50
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		0.95	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	175	21	124	237	41	196	72	1345	206	258	1685	52
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	236	28	224	328	50	240	70	1182	360	506	2503	775
Arrive On Green	0.15	0.15	0.15	0.19	0.19	0.19	0.04	0.23	0.23	0.29	0.50	0.50
Sat Flow, veh/h	1577	189	1496	1757	269	1287	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	196	0	124	237	0	237	72	1345	206	258	1685	52
Grp Sat Flow(s),veh/h/ln	1766	0	1496	1757	0	1556	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.9	2.6
Cycle Q Clear(g_c), s	15.9	0.0	11.5	19.0	0.0	21.9	6.0	35.2	17.8	18.4	37.9	2.6
Prop In Lane	0.89		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	224	328	0	290	70	1182	360	506	2503	775
V/C Ratio(X)	0.74	0.00	0.55	0.72	0.00	0.82	1.02	1.14	0.57	0.51	0.67	0.07
Avail Cap(c_a), veh/h	447	0	379	468	0	415	70	1182	360	506	2503	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	59.1	57.4	0.0	58.5	72.0	57.4	50.7	44.6	28.5	19.6
Incr Delay (d2), s/veh	1.6	0.0	0.8	1.3	0.0	5.5	114.3	72.9	6.5	0.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	4.8	9.3	0.0	9.9	5.1	24.3	8.2	9.0	17.8	1.2
LnGrp Delay(d),s/veh	62.6	0.0	59.9	58.6	0.0	64.0	186.7	130.3	57.2	45.0	30.0	19.8
LnGrp LOS	E		E	E		E	F	F	E	D	C	B
Approach Vol, veh/h		320			474			1623			1995	
Approach Delay, s/veh		61.5			61.3			123.5			31.6	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	49.6	41.6		26.6	10.2	81.0		32.2
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 18	* 35		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	20.4	37.2		17.9	8.0	39.9		23.9
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	4.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	70.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	10	462	10	10	10	172	1325	10	30	1714	100
Future Volume (veh/h)	280	10	462	10	10	10	172	1325	10	30	1714	100
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		0.96	1.00		0.92	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	196	0	582	10	10	10	177	1366	10	31	1767	103
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	388	0	668	38	38	38	114	1915	849	39	2604	152
Arrive On Green	0.22	0.00	0.22	0.07	0.07	0.07	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1757	0	3026	553	553	553	3408	3505	1554	1757	4862	283
Grp Volume(v), veh/h	196	0	582	30	0	0	177	1366	10	31	1219	651
Grp Sat Flow(s),veh/h/ln	1757	0	1513	1659	0	0	1704	1752	1554	1757	1679	1787
Q Serve(g_s), s	14.7	0.0	27.8	2.6	0.0	0.0	5.0	43.4	0.4	2.6	39.7	39.9
Cycle Q Clear(g_c), s	14.7	0.0	27.8	2.6	0.0	0.0	5.0	43.4	0.4	2.6	39.7	39.9
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	388	0	668	115	0	0	114	1915	849	39	1798	957
V/C Ratio(X)	0.51	0.00	0.87	0.26	0.00	0.00	1.56	0.71	0.01	0.79	0.68	0.68
Avail Cap(c_a), veh/h	445	0	766	443	0	0	114	1915	849	47	1798	957
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	56.4	66.2	0.0	0.0	72.5	25.3	15.5	73.0	25.4	25.4
Incr Delay (d2), s/veh	1.0	0.0	9.8	1.2	0.0	0.0	289.5	2.3	0.0	51.7	2.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	12.5	1.2	0.0	0.0	6.9	21.5	0.2	1.8	18.8	20.7
LnGrp Delay(d),s/veh	52.3	0.0	66.2	67.4	0.0	0.0	362.0	27.6	15.5	124.7	27.5	29.3
LnGrp LOS	D		E	E			F	C	B	F	C	C
Approach Vol, veh/h		778			30			1553			1901	
Approach Delay, s/veh		62.7			67.4			65.6			29.7	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	88.0		38.1	11.0	86.3		14.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.0	45.8		40.0
Max Q Clear Time (g_c+I1), s	4.6	45.4		29.8	7.0	41.9		4.6
Green Ext Time (p_c), s	0.0	1.1		2.1	0.0	3.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	49.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	290	30	120	20	1287	490	220	1896	20
Future Volume (veh/h)	10	10	10	290	30	120	20	1287	490	220	1896	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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	11	11	11	312	32	129	22	1384	527	237	2039	22
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	207	169	358	376	325	685	2837	879	282	2225	24
Arrive On Green	0.01	0.12	0.12	0.10	0.21	0.21	0.20	0.56	0.56	0.08	0.43	0.43
Sat Flow, veh/h	3408	1782	1457	3408	1752	1512	3408	5036	1560	3408	5135	55
Grp Volume(v), veh/h	11	11	11	312	32	129	22	1384	527	237	1333	728
Grp Sat Flow(s),veh/h/ln	1704	1752	1487	1704	1752	1512	1704	1679	1560	1704	1679	1833
Q Serve(g_s), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.8	19.8	10.3	55.9	56.0
Cycle Q Clear(g_c), s	0.5	0.8	1.0	13.5	2.2	11.0	0.8	24.8	19.8	10.3	55.9	56.0
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	204	173	358	376	325	685	2837	879	282	1455	794
V/C Ratio(X)	0.33	0.05	0.06	0.87	0.09	0.40	0.03	0.49	0.60	0.84	0.92	0.92
Avail Cap(c_a), veh/h	91	456	387	427	625	539	685	2837	879	357	1524	832
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	73.8	59.0	59.0	66.1	47.1	50.6	48.2	19.7	7.6	67.8	39.9	40.0
Incr Delay (d2), s/veh	2.1	0.0	0.1	13.9	0.0	0.3	0.0	0.6	3.0	11.0	10.5	17.1
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	0.2	0.4	0.4	7.1	1.1	4.6	0.4	11.7	9.2	5.3	28.0	32.1
LnGrp Delay(d),s/veh	75.9	59.0	59.1	80.1	47.2	50.9	48.2	20.3	10.6	78.8	50.5	57.1
LnGrp LOS	E	E	E	F	D	D	D	C	B	E	D	E
Approach Vol, veh/h		33			473			1933			2298	
Approach Delay, s/veh		64.7			69.9			18.0			55.5	
Approach LOS		E			E			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	90.5	20.7	22.1	36.1	71.0	5.7	37.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	12.3	26.8	15.5	3.0	2.8	58.0	2.5	13.0
Green Ext Time (p_c), s	0.2	24.7	0.2	0.1	0.0	7.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Notes

APPENDIX F

HORIZON YEAR INTERSECTION ANALYSIS CALCULATION WORKSHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	250	620	80	1010	20	190	20	30	20	20	20
Future Volume (veh/h)	20	250	620	80	1010	20	190	20	30	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.95	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	22	278	689	89	1122	22	133	131	33	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	421	912	798	113	1211	24	255	204	51	28	28	28
Arrive On Green	0.24	0.52	0.52	0.06	0.34	0.34	0.15	0.15	0.15	0.05	0.05	0.05
Sat Flow, veh/h	1757	1752	1534	1757	3512	69	1757	1407	354	551	551	551
Grp Volume(v), veh/h	22	278	689	89	560	584	133	0	164	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1534	1757	1752	1829	1757	0	1762	1652	0	0
Q Serve(g_s), s	1.0	9.0	39.1	5.0	30.8	30.8	7.0	0.0	8.8	4.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.0	39.1	5.0	30.8	30.8	7.0	0.0	8.8	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.20	0.33		0.33
Lane Grp Cap(c), veh/h	421	912	798	113	604	630	255	0	255	83	0	0
V/C Ratio(X)	0.05	0.30	0.86	0.79	0.93	0.93	0.52	0.00	0.64	0.79	0.00	0.00
Avail Cap(c_a), veh/h	421	912	798	141	613	640	580	0	581	99	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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.3	13.7	20.9	46.1	31.5	31.5	39.5	0.0	40.3	47.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	11.9	16.6	22.4	21.8	1.2	0.0	2.0	25.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.5	19.1	2.9	18.5	19.2	3.5	0.0	4.4	2.4	0.0	0.0
LnGrp Delay(d),s/veh	29.3	14.5	32.8	62.8	53.9	53.3	40.8	0.0	42.3	72.0	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D		D	E		
Approach Vol, veh/h		989			1233			297			66	
Approach Delay, s/veh		27.6			54.3			41.6			72.0	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	58.0		10.0	30.0	40.5		19.5
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	7.0	41.1		6.0	3.0	32.8		10.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.7		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	43.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	2240	700	200	640	210	130	220	20	420	390	410
Future Volume (veh/h)	210	2240	700	200	640	210	130	220	20	420	390	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	228	2435	0	217	696	228	141	239	22	457	424	446
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	2072	645	470	3265	1012	105	991	90	105	536	466
Arrive On Green	0.04	0.41	0.00	0.27	0.65	0.65	0.03	0.31	0.31	0.03	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1561	3408	3239	295	3408	1752	1523
Grp Volume(v), veh/h	228	2435	0	217	696	228	141	128	133	457	424	446
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1561	1704	1752	1782	1704	1752	1523
Q Serve(g_s), s	5.0	53.5	0.0	13.4	7.3	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Cycle Q Clear(g_c), s	5.0	53.5	0.0	13.4	7.3	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	68	2072	645	470	3265	1012	105	536	545	105	536	466
V/C Ratio(X)	3.37	1.17	0.00	0.46	0.21	0.23	1.34	0.24	0.24	4.36	0.79	0.96
Avail Cap(c_a), veh/h	68	2072	645	470	3265	1012	105	539	548	105	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	39.8	9.3	9.4	63.0	33.8	33.8	63.0	41.3	44.3
Incr Delay (d2), s/veh	1105.0	84.2	0.0	0.3	0.1	0.5	205.6	0.1	0.1	1533.0	7.2	30.6
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	23.2	40.9	0.0	6.5	3.4	3.5	4.9	3.5	3.6	24.2	15.0	19.7
LnGrp Delay(d),s/veh	1167.5	122.4	0.0	40.0	9.5	9.9	268.6	33.9	33.9	1596.0	48.5	74.9
LnGrp LOS	F	F		D	A	A	F	C	C	F	D	E
Approach Vol, veh/h		2663			1141			402			1327	
Approach Delay, s/veh		211.9			15.4			116.2			590.3	
Approach LOS		F			B			F			F	

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	41.5	59.5	9.0	46.3	10.0	91.0	9.0	46.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	15.4	55.5	6.0	39.4	7.0	9.8	6.0	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.1	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	255.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	430	170	210	420	90	270	310	390	260	540	130
Future Volume (veh/h)	70	430	170	210	420	90	270	310	390	260	540	130
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	76	467	185	228	457	98	293	337	424	283	587	141
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	97	684	269	136	866	184	264	571	497	264	909	218
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.30	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	1757	2436	957	1757	2860	608	3408	1752	1524	3408	2789	668
Grp Volume(v), veh/h	76	335	317	228	279	276	293	337	424	283	368	360
Grp Sat Flow(s),veh/h/ln	1757	1752	1641	1757	1752	1716	1704	1752	1524	1704	1752	1704
Q Serve(g_s), s	3.6	14.3	14.5	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.0	15.1
Cycle Q Clear(g_c), s	3.6	14.3	14.5	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.0	15.1
Prop In Lane	1.00		0.58	1.00		0.35	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	97	492	461	136	531	520	264	571	497	264	571	556
V/C Ratio(X)	0.78	0.68	0.69	1.68	0.52	0.53	1.11	0.59	0.85	1.07	0.64	0.65
Avail Cap(c_a), veh/h	119	752	704	136	769	753	264	648	563	264	648	630
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	39.1	26.8	26.9	38.7	24.2	24.3	38.7	23.6	26.4	38.7	24.1	24.2
Incr Delay (d2), s/veh	23.3	1.7	1.8	333.7	0.8	0.8	88.0	1.1	11.0	75.7	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.1	6.8	15.7	5.5	5.4	6.2	6.6	10.7	5.8	7.6	7.4
LnGrp Delay(d),s/veh	62.4	28.5	28.8	372.4	25.0	25.1	126.7	24.7	37.4	114.4	26.0	26.1
LnGrp LOS	E	C	C	F	C	C	F	C	D	F	C	C
Approach Vol, veh/h		728			783			1054			1011	
Approach Delay, s/veh		32.1			126.2			58.2			50.8	
Approach LOS		C			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	33.4	11.0	28.5	11.0	33.4	9.1	30.4
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	8.5	23.8	8.5	16.5	8.5	17.1	5.6	13.2
Green Ext Time (p_c), s	0.0	2.6	0.0	3.7	0.0	3.4	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	65.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	350	190	220	860	200	800	710	150	500	1770	250
Future Volume (veh/h)	60	350	190	220	860	200	800	710	150	500	1770	250
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	65	380	207	239	935	217	870	772	163	543	1924	272
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	1240	550	105	1084	471	2024	3270	684	414	1511	466
Arrive On Green	0.10	0.35	0.35	0.06	0.31	0.31	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1523	3408	4159	870	3408	5036	1552
Grp Volume(v), veh/h	65	380	207	239	935	217	870	622	313	543	1924	272
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1523	1704	1679	1672	1704	1679	1552
Q Serve(g_s), s	4.5	10.2	8.8	7.8	32.7	20.9	18.1	6.3	6.4	15.8	39.0	19.3
Cycle Q Clear(g_c), s	4.5	10.2	8.8	7.8	32.7	20.9	18.1	6.3	6.4	15.8	39.0	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	173	1240	550	105	1084	471	2024	2639	1314	414	1511	466
V/C Ratio(X)	0.38	0.31	0.38	2.27	0.86	0.46	0.43	0.24	0.24	1.31	1.27	0.58
Avail Cap(c_a), veh/h	173	1240	550	105	1286	559	2024	2639	1314	414	1511	466
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	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	30.4	14.4	61.1	42.3	71.2	14.4	3.6	3.7	57.1	45.5	38.6
Incr Delay (d2), s/veh	6.1	0.6	2.0	599.4	4.8	0.3	0.0	0.1	0.3	156.3	128.4	5.3
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	2.5	5.1	4.0	21.3	16.6	8.8	8.5	2.9	3.0	16.4	36.0	9.0
LnGrp Delay(d),s/veh	61.0	31.1	16.4	660.5	47.1	71.5	14.4	3.8	4.0	213.4	173.9	43.9
LnGrp LOS	E	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		652			1391			1805			2739	
Approach Delay, s/veh		29.4			156.3			9.0			168.8	
Approach LOS		C			F			A			F	

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	20.0	110.0	12.0	51.0	85.0	45.0	17.8	45.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.8	* 39	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.4	9.8	12.2	20.1	41.0	6.5	34.7
Green Ext Time (p_c), s	0.0	4.7	0.0	2.1	0.0	0.0	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	108.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	610	90	0	770	350	0	0	0	1310	0	450
Future Volume (veh/h)	0	610	90	0	770	350	0	0	0	1310	0	450
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	678	100	0	856	0				1456	0	500
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1374	201	0	1084	485				1557	0	716
Arrive On Green	0.00	0.31	0.31	0.00	0.31	0.00				0.46	0.00	0.46
Sat Flow, veh/h	0	4605	648	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	511	267	0	856	0				1456	0	500
Grp Sat Flow(s),veh/h/ln	0	1679	1730	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.6	5.7	0.0	10.0	0.0				18.2	0.0	11.4
Cycle Q Clear(g_c), s	0.0	5.6	5.7	0.0	10.0	0.0				18.2	0.0	11.4
Prop In Lane	0.00		0.37	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1039	535	0	1084	485				1557	0	716
V/C Ratio(X)	0.00	0.49	0.50	0.00	0.79	0.00				0.94	0.00	0.70
Avail Cap(c_a), veh/h	0	1802	929	0	1881	841				1928	0	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.6	12.7	0.0	14.2	0.0				11.6	0.0	9.7
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	0.5	0.0				7.3	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	2.7	0.0	4.8	0.0				9.9	0.0	5.1
LnGrp Delay(d),s/veh	0.0	12.8	12.9	0.0	14.7	0.0				18.9	0.0	10.9
LnGrp LOS		B	B		B					B		B
Approach Vol, veh/h		778			856						1956	
Approach Delay, s/veh		12.8			14.7						16.9	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		19.3		25.6		19.3		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		7.7		20.2		12.0		
Green Ext Time (p_c), s		1.0		0.3		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1840	0	0	980	500	80	0	1320	0	0	0
Future Volume (veh/h)	90	1840	0	0	980	500	80	0	1320	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1897	0	0	1010	515	82	0	1361			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	114	2077	0	0	1581	826	901	0	1383			
Arrive On Green	0.06	0.41	0.00	0.00	0.10	0.10	0.51	0.00	0.51			
Sat Flow, veh/h	1757	5202	0	0	5202	2629	1757	0	2699			
Grp Volume(v), veh/h	93	1897	0	0	1010	515	82	0	1361			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1315	1757	0	1349			
Q Serve(g_s), s	7.3	49.7	0.0	0.0	27.0	26.3	3.3	0.0	69.4			
Cycle Q Clear(g_c), s	7.3	49.7	0.0	0.0	27.0	26.3	3.3	0.0	69.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	114	2077	0	0	1581	826	901	0	1383			
V/C Ratio(X)	0.82	0.91	0.00	0.00	0.64	0.62	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2077	0	0	1581	826	926	0	1423			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.57	0.57	0.00	0.00	0.78	0.78	1.00	0.00	1.00			
Uniform Delay (d), s/veh	64.6	38.8	0.0	0.0	55.1	54.8	17.4	0.0	33.5			
Incr Delay (d2), s/veh	8.3	4.7	0.0	0.0	1.6	2.8	0.0	0.0	19.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.8	23.9	0.0	0.0	12.8	9.9	1.6	0.0	29.5			
LnGrp Delay(d),s/veh	72.9	43.5	0.0	0.0	56.7	57.6	17.5	0.0	53.2			
LnGrp LOS	E	D			E	E	B		D			
Approach Vol, veh/h		1990			1525			1443				
Approach Delay, s/veh		44.8			57.0			51.2				
Approach LOS		D			E			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		63.1			13.8	49.4		76.9
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		51.7			9.3	29.0		71.4
Green Ext Time (p_c), s		1.9			0.0	1.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	2870	150	110	1220	220	150	50	110	100	50	90
Future Volume (veh/h)	150	2870	150	110	1220	220	150	50	110	100	50	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	160	3053	160	117	1298	234	160	53	117	106	53	96
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1298	3084	159	122	1723	479	207	279	238	127	228	193
Arrive On Green	0.13	0.21	0.21	0.01	0.09	0.09	0.06	0.16	0.16	0.04	0.13	0.13
Sat Flow, veh/h	3408	4899	252	3408	6346	1551	3408	1752	1499	3408	1752	1488
Grp Volume(v), veh/h	160	2074	1139	117	1298	234	160	53	117	106	53	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1794	1704	1586	1551	1704	1752	1499	1704	1752	1488
Q Serve(g_s), s	5.8	86.0	88.1	4.8	28.0	12.7	6.5	3.7	10.0	4.3	3.8	8.4
Cycle Q Clear(g_c), s	5.8	86.0	88.1	4.8	28.0	12.7	6.5	3.7	10.0	4.3	3.8	8.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1298	2113	1129	122	1723	479	207	279	238	127	228	193
V/C Ratio(X)	0.12	0.98	1.01	0.96	0.75	0.49	0.77	0.19	0.49	0.84	0.23	0.50
Avail Cap(c_a), veh/h	1298	2113	1129	122	3010	794	236	488	418	127	432	367
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	54.6	55.5	69.1	59.1	33.8	64.8	51.0	53.7	67.0	54.7	56.7
Incr Delay (d2), s/veh	0.0	6.0	15.1	55.7	2.1	2.4	10.9	0.1	0.6	34.8	0.2	0.7
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	2.8	41.8	48.6	3.2	12.6	5.8	3.4	1.8	4.2	2.7	1.9	3.5
LnGrp Delay(d),s/veh	40.5	60.7	70.5	124.8	61.3	36.2	75.7	51.2	54.3	101.8	54.8	57.4
LnGrp LOS	D	E	F	F	E	D	E	D	D	F	D	E
Approach Vol, veh/h		3373			1649			330			255	
Approach Delay, s/veh		63.0			62.2			64.2			75.3	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	94.1	13.5	23.2	59.3	44.0	9.4	27.3
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.8	90.1	8.5	10.4	7.8	30.0	6.3	12.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.1	8.1	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	63.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	2620	210	130	1210	230	130	40	190	130	40	90
Future Volume (veh/h)	190	2620	210	130	1210	230	130	40	190	130	40	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	2787	223	138	1287	245	138	0	231	138	43	96
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1273	3207	1056	118	1599	549	141	0	350	122	210	169
Arrive On Green	0.75	1.00	1.00	0.02	0.10	0.10	0.04	0.00	0.12	0.04	0.11	0.11
Sat Flow, veh/h	3408	5036	1561	1757	5036	1553	3514	0	2964	3408	1845	1479
Grp Volume(v), veh/h	202	2787	223	138	1287	245	138	0	231	138	43	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1553	1757	0	1482	1704	1845	1479
Q Serve(g_s), s	2.4	0.0	0.0	9.4	35.0	15.5	5.5	0.0	8.9	5.0	3.0	4.2
Cycle Q Clear(g_c), s	2.4	0.0	0.0	9.4	35.0	15.5	5.5	0.0	8.9	5.0	3.0	4.2
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	1273	3207	1056	118	1599	549	141	0	350	122	210	169
V/C Ratio(X)	0.16	0.87	0.21	1.17	0.80	0.45	0.98	0.00	0.66	1.13	0.20	0.57
Avail Cap(c_a), veh/h	1273	3207	1056	118	2266	755	141	0	860	122	527	423
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.71	0.71	0.71	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	68.4	58.4	47.4	67.1	0.0	42.8	67.5	56.3	14.1
Incr Delay (d2), s/veh	0.0	0.3	0.0	122.7	3.2	1.8	70.0	0.0	0.8	122.0	0.2	1.1
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	1.1	0.1	0.0	8.6	16.8	7.0	4.0	0.0	3.7	4.4	1.5	1.8
LnGrp Delay(d),s/veh	11.4	0.3	0.0	191.1	61.6	49.2	137.1	0.0	43.6	189.5	56.4	15.2
LnGrp LOS	B	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		3212			1670			369			277	
Approach Delay, s/veh		1.0			70.5			78.6			108.5	
Approach LOS		A			E			E			F	

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	13.6	95.1	10.3	21.0	58.3	50.5	10.0	21.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.6	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.4	2.0	7.5	6.2	4.4	37.0	7.0	10.9
Green Ext Time (p_c), s	0.0	28.9	0.0	0.3	0.2	7.5	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2710	110	80	1460	160	80	30	110	70	20	80
Future Volume (veh/h)	160	2710	110	80	1460	160	80	30	110	70	20	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	172	2914	118	86	1570	172	86	32	118	75	22	86
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	193	2410	813	306	2525	276	79	44	161	94	269	218
Arrive On Green	0.22	0.96	0.96	0.35	1.00	1.00	0.05	0.13	0.13	0.05	0.15	0.15
Sat Flow, veh/h	1757	5036	1552	1757	4590	502	1757	331	1221	1757	1845	1494
Grp Volume(v), veh/h	172	2914	118	86	1148	594	86	0	150	75	22	86
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1734	1757	0	1553	1757	1845	1494
Q Serve(g_s), s	13.3	67.0	0.2	5.0	0.0	0.0	6.3	0.0	13.0	5.9	1.4	7.3
Cycle Q Clear(g_c), s	13.3	67.0	0.2	5.0	0.0	0.0	6.3	0.0	13.0	5.9	1.4	7.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	193	2410	813	306	1847	954	79	0	204	94	269	218
V/C Ratio(X)	0.89	1.21	0.15	0.28	0.62	0.62	1.09	0.00	0.73	0.80	0.08	0.39
Avail Cap(c_a), veh/h	238	2410	813	306	1847	954	79	0	405	113	514	416
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.63	0.63	0.63	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	3.0	0.5	39.3	0.0	0.0	66.8	0.0	58.4	65.5	51.7	54.2
Incr Delay (d2), s/veh	3.2	94.5	0.0	0.1	1.0	2.0	127.2	0.0	1.9	23.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	42.1	0.1	2.4	0.3	0.5	5.8	0.0	5.7	3.5	0.7	3.0
LnGrp Delay(d),s/veh	57.1	97.5	0.5	39.4	1.0	2.0	194.6	0.0	60.3	88.6	51.7	54.6
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	D
Approach Vol, veh/h		3204			1828			236			183	
Approach Delay, s/veh		91.7			3.1			109.3			68.2	
Approach LOS		F			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	73.0	10.5	26.1	20.4	83.0	12.5	24.1
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	7.6	* 67	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	7.0	69.0	8.3	9.3	15.3	2.0	7.9	15.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.1	12.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	770	1860	180	170	1170	60	210	520	290	60	230	200
Future Volume (veh/h)	770	1860	180	170	1170	60	210	520	290	60	230	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	828	2000	194	183	1258	65	226	559	312	65	247	215
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1024	2513	782	214	1241	382	287	858	379	82	359	771
Arrive On Green	0.60	1.00	1.00	0.06	0.25	0.25	0.08	0.24	0.24	0.05	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1549	3408	3505	1549	1757	1845	1544
Grp Volume(v), veh/h	828	2000	194	183	1258	65	226	559	312	65	247	215
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1549	1704	1752	1549	1757	1845	1544
Q Serve(g_s), s	26.4	0.5	0.0	7.4	34.5	3.9	9.1	20.1	26.7	5.1	17.4	0.0
Cycle Q Clear(g_c), s	26.4	0.5	0.0	7.4	34.5	3.9	9.1	20.1	26.7	5.1	17.4	0.0
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	1024	2513	782	214	1241	382	287	858	379	82	359	771
V/C Ratio(X)	0.81	0.80	0.25	0.85	1.01	0.17	0.79	0.65	0.82	0.79	0.69	0.28
Avail Cap(c_a), veh/h	1024	2513	782	214	1241	382	287	1054	466	114	540	923
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.22	0.22	0.22	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	0.1	0.0	65.0	52.8	29.2	62.9	47.5	50.0	66.0	52.4	20.7
Incr Delay (d2), s/veh	1.0	0.6	0.2	25.8	29.0	1.0	12.4	0.5	7.9	14.7	0.9	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	12.3	0.2	0.0	4.3	19.3	1.8	4.8	9.8	12.2	2.8	9.0	4.9
LnGrp Delay(d),s/veh	25.9	0.7	0.2	90.8	81.7	30.1	75.3	48.0	57.9	80.7	53.3	20.8
LnGrp LOS	C	A	A	F	F	C	E	D	E	F	D	C
Approach Vol, veh/h		3022			1506			1097			527	
Approach Delay, s/veh		7.5			80.6			56.5			43.4	
Approach LOS		A			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	76.2	17.6	33.2	48.4	40.8	10.8	40.1
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	9.4	2.5	11.1	19.4	28.4	36.5	7.1	28.7
Green Ext Time (p_c), s	0.0	13.5	0.0	1.1	0.9	0.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	1640	410	210	1190	370	150	100	70	70	40	60
Future Volume (veh/h)	160	1640	410	210	1190	370	150	100	70	70	40	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	174	1783	446	228	1293	402	163	109	76	76	43	65
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	452	2044	497	247	1425	442	186	163	114	94	301	245
Arrive On Green	0.26	0.51	0.51	0.14	0.38	0.38	0.05	0.16	0.16	0.05	0.16	0.16
Sat Flow, veh/h	1757	4010	976	1757	3767	1167	3408	993	693	1757	1845	1500
Grp Volume(v), veh/h	174	1485	744	228	1152	543	163	0	185	76	43	65
Grp Sat Flow(s),veh/h/ln	1757	1679	1629	1757	1679	1578	1704	0	1686	1757	1845	1500
Q Serve(g_s), s	12.2	58.3	61.9	19.2	48.7	49.0	7.1	0.0	15.5	6.4	3.0	3.4
Cycle Q Clear(g_c), s	12.2	58.3	61.9	19.2	48.7	49.0	7.1	0.0	15.5	6.4	3.0	3.4
Prop In Lane	1.00		0.60	1.00		0.74	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	452	1711	830	247	1270	597	186	0	277	94	301	245
V/C Ratio(X)	0.38	0.87	0.90	0.92	0.91	0.91	0.87	0.00	0.67	0.81	0.14	0.27
Avail Cap(c_a), veh/h	452	1711	830	247	1419	667	186	0	429	94	467	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	32.3	33.2	63.6	44.1	44.2	70.4	0.0	58.8	70.3	53.8	19.9
Incr Delay (d2), s/veh	0.2	6.2	14.4	36.4	10.9	20.3	32.8	0.0	1.0	37.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	28.5	31.0	11.8	24.5	24.6	4.2	0.0	7.3	4.1	1.5	1.4
LnGrp Delay(d),s/veh	46.1	38.6	47.6	100.1	55.0	64.5	103.2	0.0	59.9	107.6	53.9	20.1
LnGrp LOS	D	D	D	F	E	E	F		E	F	D	C
Approach Vol, veh/h		2403			1923			348			184	
Approach Delay, s/veh		41.9			63.1			80.2			64.2	
Approach LOS		D			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.3	82.8	12.4	29.5	45.0	63.2	12.2	29.7
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	21.2	63.9	9.1	5.4	14.2	51.0	8.4	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.1	5.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1360	190	290	1570	130	60	20	80	50	20	30
Future Volume (veh/h)	70	1360	190	290	1570	130	60	20	80	50	20	30
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.95	0.98		0.95
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	79	1528	213	326	1764	146	67	22	90	56	22	34
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	98	1631	227	656	3298	272	221	271	219	130	53	64
Arrive On Green	0.06	0.37	0.37	0.37	0.70	0.70	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1757	4442	618	1757	4733	391	1310	1845	1495	638	360	435
Grp Volume(v), veh/h	79	1154	587	326	1250	660	67	22	90	112	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1767	1310	1845	1495	1433	0	0
Q Serve(g_s), s	6.7	49.7	49.9	21.4	27.0	27.1	0.0	1.5	8.2	8.6	0.0	0.0
Cycle Q Clear(g_c), s	6.7	49.7	49.9	21.4	27.0	27.1	8.8	1.5	8.2	10.6	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.22	1.00		1.00	0.50		0.30
Lane Grp Cap(c), veh/h	98	1233	625	656	2339	1231	221	271	219	246	0	0
V/C Ratio(X)	0.81	0.94	0.94	0.50	0.53	0.54	0.30	0.08	0.41	0.45	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	656	2339	1231	371	481	390	406	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.0	45.8	45.8	36.2	11.0	11.0	58.3	55.3	58.1	59.0	0.0	0.0
Incr Delay (d2), s/veh	9.0	14.3	23.7	0.2	0.9	1.7	0.3	0.0	0.5	0.5	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	3.5	25.5	27.6	10.5	12.6	13.8	2.5	0.8	3.4	4.3	0.0	0.0
LnGrp Delay(d),s/veh	79.0	60.1	69.6	36.4	11.9	12.7	58.6	55.3	58.6	59.5	0.0	0.0
LnGrp LOS	E	E	E	D	B	B	E	E	E	E		
Approach Vol, veh/h		1820			2236			179			112	
Approach Delay, s/veh		64.0			15.7			58.2			59.5	
Approach LOS		E			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	62.0	61.1		26.9	12.6	110.5		26.9
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	23.4	51.9		10.8	8.7	29.1		12.6
Green Ext Time (p_c), s	0.4	3.1		0.3	0.0	10.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1030	340	800	1770	710	290	790	460	540	1150	380
Future Volume (veh/h)	190	1030	340	800	1770	710	290	790	460	540	1150	380
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	207	1120	370	870	1924	772	315	859	500	587	1250	413
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	542	1305	402	454	1175	636	364	1544	1214	480	1716	779
Arrive On Green	0.16	0.26	0.26	0.09	0.16	0.16	0.11	0.31	0.31	0.14	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2724	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	207	1120	370	870	1924	772	315	859	500	587	1250	413
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	8.2	31.8	34.9	20.0	35.0	35.0	13.6	21.4	9.9	21.1	32.6	8.0
Cycle Q Clear(g_c), s	8.2	31.8	34.9	20.0	35.0	35.0	13.6	21.4	9.9	21.1	32.6	8.0
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	542	1305	402	454	1175	636	364	1544	1214	480	1716	779
V/C Ratio(X)	0.38	0.86	0.92	1.91	1.64	1.21	0.87	0.56	0.41	1.22	0.73	0.53
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	480	1716	779
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	56.5	52.9	54.1	68.3	63.3	63.3	65.9	43.5	11.2	64.4	43.4	9.8
Incr Delay (d2), s/veh	0.2	5.4	24.9	412.3	287.2	98.0	6.4	1.5	1.0	101.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	15.4	17.7	35.4	47.5	21.8	6.8	10.1	3.9	16.7	15.2	6.2
LnGrp Delay(d),s/veh	56.6	58.3	79.0	480.6	350.4	161.2	72.4	44.9	12.2	166.3	43.6	10.0
LnGrp LOS	E	E	E	F	F	F	E	D	B	F	D	B
Approach Vol, veh/h		1697			3566			1674			2250	
Approach Delay, s/veh		62.6			341.2			40.3			69.5	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	44.9	22.0	57.1	29.9	41.0	27.1	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	36.9	15.6	34.6	10.2	37.0	23.1	23.4
Green Ext Time (p_c), s	0.0	1.7	0.4	4.2	0.3	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	168.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1420	330	390	2880	170	160	80	110	50	40	140
Future Volume (veh/h)	300	1420	330	390	2880	170	160	80	110	50	40	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	326	1543	359	424	3130	185	174	87	120	54	43	152
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	1673	579	563	2283	132	91	311	253	69	287	233
Arrive On Green	0.39	0.66	0.66	0.64	0.94	0.94	0.05	0.17	0.17	0.04	0.16	0.16
Sat Flow, veh/h	1757	5036	1496	1757	4867	282	1757	1845	1502	1757	1845	1498
Grp Volume(v), veh/h	326	1543	359	424	2139	1176	174	87	120	54	43	152
Grp Sat Flow(s),veh/h/ln	1757	1679	1496	1757	1679	1791	1757	1845	1502	1757	1845	1498
Q Serve(g_s), s	26.9	39.8	6.5	25.1	70.4	70.4	7.8	6.2	5.7	4.6	3.0	14.3
Cycle Q Clear(g_c), s	26.9	39.8	6.5	25.1	70.4	70.4	7.8	6.2	5.7	4.6	3.0	14.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1673	579	563	1575	840	91	311	253	69	287	233
V/C Ratio(X)	0.95	0.92	0.62	0.75	1.36	1.40	1.90	0.28	0.47	0.78	0.15	0.65
Avail Cap(c_a), veh/h	762	2192	733	563	1575	840	91	464	377	71	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	23.5	7.2	22.8	4.6	4.6	71.1	54.4	15.7	71.4	54.7	59.5
Incr Delay (d2), s/veh	2.5	4.1	1.8	0.5	161.6	180.1	445.0	0.2	0.5	37.7	0.1	1.1
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	13.3	18.6	3.3	12.1	61.1	69.6	15.1	3.2	2.4	2.9	1.5	6.0
LnGrp Delay(d),s/veh	47.4	27.6	9.0	23.2	166.2	184.7	516.1	54.6	16.2	109.2	54.8	60.6
LnGrp LOS	D	C	A	C	F	F	F	D	B	F	D	E
Approach Vol, veh/h		2228			3739			381			249	
Approach Delay, s/veh		27.5			155.8			253.3			70.2	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	54.1	55.8	12.0	28.1	33.5	76.4	10.1	30.0
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 65	22.0	* 6.1	* 38
Max Q Clear Time (g_c+I1), s	27.1	41.8	9.8	16.3	28.9	72.4	6.6	8.2
Green Ext Time (p_c), s	0.0	8.0	0.0	0.4	0.4	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	114.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	1210	200	380	3210	210	160	140	140	120	200	100
Future Volume (veh/h)	130	1210	200	380	3210	210	160	140	140	120	200	100
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.96	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	141	1315	217	413	3489	228	174	152	152	130	217	109
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	321	2743	849	460	2770	177	132	273	233	120	348	168
Arrive On Green	0.19	1.00	1.00	0.27	1.00	1.00	0.04	0.16	0.16	0.04	0.15	0.15
Sat Flow, veh/h	3408	5036	1559	3408	4831	308	3408	1752	1498	3408	2279	1098
Grp Volume(v), veh/h	141	1315	217	413	2399	1318	174	152	152	130	165	161
Grp Sat Flow(s),veh/h/ln	1704	1679	1559	1704	1679	1782	1704	1752	1498	1704	1752	1625
Q Serve(g_s), s	5.5	0.0	0.0	17.5	0.0	86.0	5.8	12.0	14.3	5.3	13.2	14.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0	17.5	0.0	86.0	5.8	12.0	14.3	5.3	13.2	14.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	321	2743	849	460	1925	1022	132	273	233	120	267	248
V/C Ratio(X)	0.44	0.48	0.26	0.90	1.25	1.29	1.32	0.56	0.65	1.08	0.62	0.65
Avail Cap(c_a), veh/h	321	2743	849	1518	1925	1022	132	403	345	120	397	368
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	0.0	0.0	53.8	0.0	0.0	72.1	58.5	59.5	72.3	59.5	59.8
Incr Delay (d2), s/veh	0.2	0.4	0.5	0.2	111.3	131.1	187.4	0.7	1.1	105.0	0.9	1.1
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	2.6	0.1	0.1	8.3	29.7	37.2	6.2	5.9	6.0	4.2	6.5	6.4
LnGrp Delay(d),s/veh	57.6	0.4	0.5	54.0	111.3	131.1	259.5	59.2	60.6	177.3	60.3	60.9
LnGrp LOS	E	A	A	D	F	F	F	E	E	F	E	E
Approach Vol, veh/h		1673			4130			478			456	
Approach Delay, s/veh		5.2			111.9			132.6			93.9	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.4	87.7	10.0	27.9	20.1	92.0	9.5	28.4
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	19.5	2.0	7.8	16.0	7.5	88.0	7.3	16.3
Green Ext Time (p_c), s	0.7	6.0	0.0	1.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	960	180	130	1860	100	600	870	240	90	1030	1430
Future Volume (veh/h)	500	960	180	130	1860	100	600	870	240	90	1030	1430
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	515	990	186	134	1918	103	619	897	247	93	1062	1474
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	582	2201	681	178	1544	476	495	2207	622	135	848	1130
Arrive On Green	0.34	0.87	0.87	0.05	0.31	0.31	0.15	0.35	0.35	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	515	990	186	134	1918	103	619	897	247	93	1062	1474
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1363
Q Serve(g_s), s	21.4	6.1	3.0	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.1
Cycle Q Clear(g_c), s	21.4	6.1	3.0	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.1
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	582	2201	681	178	1544	476	495	2207	622	135	848	1130
V/C Ratio(X)	0.89	0.45	0.27	0.75	1.24	0.22	1.25	0.41	0.40	0.69	1.25	1.30
Avail Cap(c_a), veh/h	586	2201	681	218	1544	476	495	2207	622	164	848	1130
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	5.7	5.5	70.1	52.0	28.8	64.1	37.2	32.1	71.1	56.9	23.6
Incr Delay (d2), s/veh	12.3	0.5	0.8	8.4	114.6	1.0	128.3	0.0	0.2	5.9	123.2	143.3
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	11.0	2.7	1.3	2.9	37.7	2.9	19.1	7.0	7.3	2.0	32.1	33.3
LnGrp Delay(d),s/veh	60.3	6.2	6.3	78.5	166.6	29.8	192.4	37.2	32.3	77.0	180.0	166.9
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	F	F
Approach Vol, veh/h		1691			2155			1763			2629	
Approach Delay, s/veh		22.7			154.6			91.0			169.0	
Approach LOS		C			F			F			F	

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	12.0	71.6	26.0	42.3	31.6	52.0	10.1	58.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	7.8	8.1	23.8	38.3	23.4	48.0	6.0	19.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.3	0.0	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	118.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	30	60	150	60	80	180	1650	160	350	1580	100
Future Volume (veh/h)	70	30	60	150	60	80	180	1650	160	350	1580	100
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	74	32	64	160	64	85	191	1755	170	372	1681	106
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	133	58	158	240	95	127	150	1289	394	631	2741	849
Arrive On Green	0.11	0.11	0.11	0.14	0.14	0.14	0.09	0.26	0.26	0.36	0.54	0.54
Sat Flow, veh/h	1244	538	1475	1757	698	927	1757	5036	1537	1757	5036	1559
Grp Volume(v), veh/h	106	0	64	160	0	149	191	1755	170	372	1681	106
Grp Sat Flow(s),veh/h/ln	1782	0	1475	1757	0	1625	1757	1679	1537	1757	1679	1559
Q Serve(g_s), s	8.5	0.0	6.1	13.0	0.0	13.1	12.8	38.4	13.9	25.8	34.3	5.0
Cycle Q Clear(g_c), s	8.5	0.0	6.1	13.0	0.0	13.1	12.8	38.4	13.9	25.8	34.3	5.0
Prop In Lane	0.70		1.00	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	0	158	240	0	222	150	1289	394	631	2741	849
V/C Ratio(X)	0.55	0.00	0.40	0.67	0.00	0.67	1.27	1.36	0.43	0.59	0.61	0.12
Avail Cap(c_a), veh/h	452	0	374	468	0	433	150	1289	394	631	2741	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	0.0	62.5	61.5	0.0	61.6	68.6	55.8	46.7	39.1	23.4	16.7
Incr Delay (d2), s/veh	0.9	0.0	0.6	1.2	0.0	1.3	165.0	167.7	3.4	1.0	1.0	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	4.2	0.0	2.5	6.4	0.0	6.0	13.1	37.8	6.3	12.7	16.1	2.2
LnGrp Delay(d),s/veh	64.5	0.0	63.1	62.7	0.0	62.9	233.6	223.5	50.1	40.1	24.4	17.0
LnGrp LOS	E		E	E		E	F	F	D	D	C	B
Approach Vol, veh/h		170			309			2116			2159	
Approach Delay, s/veh		64.0			62.8			210.5			26.8	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.2	44.8		20.3	17.0	88.0		24.7
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 13	* 40		40.0
Max Q Clear Time (g_c+I1), s	27.8	40.4		10.5	14.8	36.3		15.1
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	2.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	112.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	20	100	20	20	20	470	1590	20	30	1520	290
Future Volume (veh/h)	70	20	100	20	20	20	470	1590	20	30	1520	290
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		0.94	1.00		0.93	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	56	76	71	21	21	21	490	1656	21	31	1583	302
Adj No. of Lanes	1	1	1	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	185	147	50	50	50	273	1094	481	627	2495	473
Arrive On Green	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.31	0.31	0.36	0.59	0.59
Sat Flow, veh/h	1757	1845	1470	557	557	557	3408	3505	1543	1757	4237	803
Grp Volume(v), veh/h	56	76	71	63	0	0	490	1656	21	31	1252	633
Grp Sat Flow(s),veh/h/ln	1757	1845	1470	1670	0	0	1704	1752	1543	1757	1679	1683
Q Serve(g_s), s	4.4	5.8	6.8	5.4	0.0	0.0	12.0	46.8	1.4	1.7	36.7	37.1
Cycle Q Clear(g_c), s	4.4	5.8	6.8	5.4	0.0	0.0	12.0	46.8	1.4	1.7	36.7	37.1
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	176	185	147	149	0	0	273	1094	481	627	1977	991
V/C Ratio(X)	0.32	0.41	0.48	0.42	0.00	0.00	1.80	1.51	0.04	0.05	0.63	0.64
Avail Cap(c_a), veh/h	445	467	372	445	0	0	273	1094	481	627	1977	991
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	63.3	63.8	64.6	0.0	0.0	69.0	51.6	36.0	31.6	20.2	20.3
Incr Delay (d2), s/veh	1.0	1.5	2.4	1.9	0.0	0.0	373.0	236.2	0.2	0.0	1.6	3.1
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	2.2	3.0	2.9	2.5	0.0	0.0	19.8	58.5	0.6	0.8	17.3	18.1
LnGrp Delay(d),s/veh	63.7	64.8	66.2	66.5	0.0	0.0	442.0	287.8	36.2	31.6	21.8	23.4
LnGrp LOS	E	E	E	E			F	F	D	C	C	C
Approach Vol, veh/h		203			63			2167			1916	
Approach Delay, s/veh		65.0			66.5			320.2			22.5	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	59.6	52.8		20.0	18.0	94.4		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.0	38.8		40.0
Max Q Clear Time (g_c+I1), s	3.7	48.8		8.8	14.0	39.1		7.4
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	173.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	50	30	410	30	180	70	1510	290	130	1390	50
Future Volume (veh/h)	70	50	30	410	30	180	70	1510	290	130	1390	50
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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	78	56	33	456	33	200	78	1678	322	144	1544	56
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	91	254	134	502	423	366	114	1900	587	728	2838	103
Arrive On Green	0.03	0.12	0.12	0.15	0.24	0.24	0.03	0.38	0.38	0.21	0.57	0.57
Sat Flow, veh/h	3408	2168	1148	3408	1752	1516	3408	5036	1555	3408	4985	181
Grp Volume(v), veh/h	78	44	45	456	33	200	78	1678	322	144	1040	560
Grp Sat Flow(s),veh/h/ln	1704	1752	1563	1704	1752	1516	1704	1679	1555	1704	1679	1808
Q Serve(g_s), s	3.4	3.4	3.9	19.8	2.2	17.3	3.4	46.7	24.4	5.2	29.0	29.0
Cycle Q Clear(g_c), s	3.4	3.4	3.9	19.8	2.2	17.3	3.4	46.7	24.4	5.2	29.0	29.0
Prop In Lane	1.00		0.73	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	91	205	183	502	423	366	114	1900	587	728	1912	1030
V/C Ratio(X)	0.86	0.21	0.25	0.91	0.08	0.55	0.69	0.88	0.55	0.20	0.54	0.54
Avail Cap(c_a), veh/h	91	456	406	568	432	374	114	1917	592	728	1912	1030
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	72.7	60.0	60.2	62.9	44.0	49.7	71.7	43.6	36.7	48.4	20.1	20.1
Incr Delay (d2), s/veh	49.8	0.2	0.3	16.1	0.0	0.9	20.1	6.4	3.7	0.0	1.1	2.1
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	2.2	1.7	1.7	10.4	1.1	7.4	1.9	22.7	11.1	2.5	13.7	15.1
LnGrp Delay(d),s/veh	122.5	60.2	60.4	79.1	44.0	50.6	91.9	50.0	40.3	48.5	21.3	22.2
LnGrp LOS	F	E	E	E	D	D	F	D	D	D	C	C
Approach Vol, veh/h		167			689			2078			1744	
Approach Delay, s/veh		89.3			69.1			50.1			23.8	
Approach LOS		F			E			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	38.0	62.6	27.1	22.3	9.2	91.4	8.2	41.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	7.2	48.7	21.8	5.9	5.4	31.0	5.4	19.3
Green Ext Time (p_c), s	0.1	7.9	0.4	0.3	0.0	9.5	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1200	250	30	540	20	680	20	110	20	20	20
Future Volume (veh/h)	60	1200	250	30	540	20	680	20	110	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	65	1290	269	32	581	22	857	0	0	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	83	1186	244	70	1389	53	977	513	0	28	28	28
Arrive On Green	0.05	0.41	0.41	0.04	0.40	0.40	0.28	0.00	0.00	0.05	0.05	0.05
Sat Flow, veh/h	1757	2883	592	1757	3438	130	3514	1845	0	551	551	551
Grp Volume(v), veh/h	65	777	782	32	296	307	857	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1723	1757	1752	1815	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.7	41.1	41.1	1.8	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	41.1	41.1	1.8	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.07	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	83	721	709	70	708	734	977	513	0	83	0	0
V/C Ratio(X)	0.78	1.08	1.10	0.46	0.42	0.42	0.88	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	123	721	709	70	708	734	1160	609	0	99	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	1.00	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	47.1	29.4	29.4	46.9	21.4	21.4	34.5	0.0	0.0	47.0	0.0	0.0
Incr Delay (d2), s/veh	9.4	56.2	65.8	19.8	1.8	1.8	6.6	0.0	0.0	25.1	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	31.1	32.4	1.2	6.2	6.4	12.2	0.0	0.0	2.4	0.0	0.0
LnGrp Delay(d),s/veh	56.5	85.6	95.2	66.7	23.2	23.1	41.1	0.0	0.0	72.0	0.0	0.0
LnGrp LOS	E	F	F	E	C	C	D			E		
Approach Vol, veh/h		1624			635			857			66	
Approach Delay, s/veh		89.1			25.3			41.1			72.0	
Approach LOS		F			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	47.1		10.0	10.7	46.4		32.8
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.8	43.1		6.0	5.7	14.1		25.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	63.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	1160	160	50	2260	370	710	440	50	270	170	460
Future Volume (veh/h)	510	1160	160	50	2260	370	710	440	50	270	170	460
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	537	1221	0	53	2379	389	747	463	53	284	179	484
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1407	438	178	1801	556	446	652	74	751	539	469
Arrive On Green	0.03	0.28	0.00	0.10	0.36	0.36	0.13	0.21	0.21	0.22	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1555	3408	3158	360	3408	1752	1523
Grp Volume(v), veh/h	537	1221	0	53	2379	389	747	256	260	284	179	484
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1555	1704	1752	1765	1704	1752	1523
Q Serve(g_s), s	4.0	30.0	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Cycle Q Clear(g_c), s	4.0	30.0	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	54	1407	438	178	1801	556	446	362	365	751	539	469
V/C Ratio(X)	9.93	0.87	0.00	0.30	1.32	0.70	1.68	0.71	0.71	0.38	0.33	1.03
Avail Cap(c_a), veh/h	54	1763	549	178	1801	556	446	607	611	751	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	44.6	0.0	54.1	41.8	9.2	56.5	47.9	48.0	43.1	34.7	45.0
Incr Delay (d2), s/veh	4057.0	7.5	0.0	0.3	148.3	7.2	313.9	1.0	1.0	0.1	0.1	50.3
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	62.9	14.9	0.0	1.8	46.3	7.1	27.4	8.6	8.8	4.4	5.0	23.3
LnGrp Delay(d),s/veh	4120.0	52.0	0.0	54.5	190.1	16.4	370.4	48.9	49.0	43.2	34.8	95.3
LnGrp LOS	F	D		D	F	B	F	D	D	D	C	F
Approach Vol, veh/h		1758			2821			1263			947	
Approach Delay, s/veh		1294.7			163.6			239.1			68.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	42.3	22.0	46.5	9.0	52.5	35.1	33.4
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	5.0	* 46	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	5.6	32.0	19.0	42.0	6.0	48.5	11.2	19.8
Green Ext Time (p_c), s	0.0	4.3	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	457.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	540	310	340	510	240	190	510	160	30	330	90
Future Volume (veh/h)	90	540	310	340	510	240	190	510	160	30	330	90
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		0.97	1.00		0.98	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	112	675	388	425	638	300	238	638	200	38	412	112
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	139	720	414	288	974	458	186	730	229	87	681	183
Arrive On Green	0.08	0.34	0.34	0.16	0.42	0.42	0.05	0.28	0.28	0.03	0.25	0.25
Sat Flow, veh/h	1757	2123	1219	1757	2296	1079	3408	2607	816	3408	2711	728
Grp Volume(v), veh/h	112	557	506	425	487	451	238	429	409	38	265	259
Grp Sat Flow(s),veh/h/ln	1757	1752	1590	1757	1752	1623	1704	1752	1671	1704	1752	1687
Q Serve(g_s), s	6.6	32.2	32.2	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Cycle Q Clear(g_c), s	6.6	32.2	32.2	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Prop In Lane	1.00		0.77	1.00		0.67	1.00		0.49	1.00		0.43
Lane Grp Cap(c), veh/h	139	595	539	288	743	688	186	491	468	87	440	424
V/C Ratio(X)	0.81	0.94	0.94	1.48	0.66	0.66	1.28	0.87	0.88	0.44	0.60	0.61
Avail Cap(c_a), veh/h	160	604	548	288	743	688	186	552	526	131	523	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	33.4	33.4	43.7	24.0	24.0	49.4	35.8	35.9	50.1	34.5	34.6
Incr Delay (d2), s/veh	23.0	22.2	24.0	232.9	2.1	2.3	160.6	13.3	14.1	3.4	1.4	1.6
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	4.1	19.1	17.6	26.8	11.5	10.7	6.8	13.6	13.1	0.6	6.9	6.8
LnGrp Delay(d),s/veh	70.3	55.6	57.4	276.5	26.1	26.2	209.9	49.2	49.9	53.6	35.9	36.2
LnGrp LOS	E	E	E	F	C	C	F	D	D	D	D	D
Approach Vol, veh/h		1175			1363			1076			562	
Approach Delay, s/veh		57.8			104.2			85.0			37.2	
Approach LOS		E			F			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	7.2	35.2	21.6	40.4	10.2	32.2	12.7	49.3
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	3.1	26.4	19.1	34.2	7.7	16.2	8.6	25.2
Green Ext Time (p_c), s	0.0	2.6	0.0	1.1	0.0	2.4	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	77.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	800	900	220	300	470	190	1740	150	310	1120	50
Future Volume (veh/h)	300	800	900	220	300	470	190	1740	150	310	1120	50
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	323	860	968	237	323	505	204	1871	161	333	1204	54
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	1048	2452	210	252	1372	422
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.31	0.52	0.52	0.07	0.27	0.27
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4716	404	3408	5036	1551
Grp Volume(v), veh/h	323	860	968	237	323	505	204	1329	703	333	1204	54
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1763	1704	1679	1551
Q Serve(g_s), s	15.4	27.3	46.0	13.8	8.6	41.9	5.7	40.9	41.4	9.6	29.7	3.5
Cycle Q Clear(g_c), s	15.4	27.3	46.0	13.8	8.6	41.9	5.7	40.9	41.4	9.6	29.7	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	1048	1746	917	252	1372	422
V/C Ratio(X)	1.55	0.69	1.76	1.27	0.27	0.95	0.19	0.76	0.77	1.32	0.88	0.13
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	1048	1746	917	252	1519	468
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	0.49	0.49	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	36.0	42.0	58.1	30.5	41.3	33.2	24.8	24.9	60.2	45.2	36.9
Incr Delay (d2), s/veh	270.7	1.4	349.3	157.0	0.0	27.1	0.0	1.6	3.1	170.4	8.2	0.6
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	23.1	13.4	73.1	14.8	4.2	21.6	2.7	19.2	20.9	10.5	14.9	1.6
LnGrp Delay(d),s/veh	328.0	37.4	391.3	215.1	30.5	68.5	33.2	26.4	28.0	230.6	53.4	37.5
LnGrp LOS	F	D	F	F	C	E	C	C	C	F	D	D
Approach Vol, veh/h		2151			1065			2236			1591	
Approach Delay, s/veh		240.3			89.6			27.5			89.9	
Approach LOS		F			F			C			F	

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	13.8	74.4	18.8	51.0	46.8	41.4	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.6	41.2	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.6	43.4	15.8	48.0	7.7	31.7	17.4	43.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	3.7	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	116.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1010	290	0	890	1210	0	0	0	660	0	200
Future Volume (veh/h)	0	1010	290	0	890	1210	0	0	0	660	0	200
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	1063	305	0	937	0				695	0	211
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1462	419	0	1317	589				894	0	411
Arrive On Green	0.00	0.38	0.38	0.00	0.38	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	4056	1116	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	917	451	0	937	0				695	0	211
Grp Sat Flow(s),veh/h/ln	0	1679	1648	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	6.8	6.8	0.0	6.6	0.0				5.5	0.0	3.3
Cycle Q Clear(g_c), s	0.0	6.8	6.8	0.0	6.6	0.0				5.5	0.0	3.3
Prop In Lane	0.00		0.68	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1262	619	0	1317	589				894	0	411
V/C Ratio(X)	0.00	0.73	0.73	0.00	0.71	0.00				0.78	0.00	0.51
Avail Cap(c_a), veh/h	0	3470	1703	0	3622	1620				1702	0	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.8	7.8	0.0	7.7	0.0				9.9	0.0	9.1
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	0.3	0.0				0.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	0.0	3.2	0.0				2.6	0.0	1.4
LnGrp Delay(d),s/veh	0.0	8.1	8.4	0.0	8.0	0.0				10.5	0.0	9.5
LnGrp LOS		A	A		A					B		A
Approach Vol, veh/h		1368			937						906	
Approach Delay, s/veh		8.2			8.0						10.2	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.3		12.7		16.3		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		8.8		7.5		8.6		
Green Ext Time (p_c), s		2.1		0.1		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1420	0	0	2000	1100	100	0	600	0	0	0
Future Volume (veh/h)	250	1420	0	0	2000	1100	100	0	600	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1449	0	0	2041	1122	102	0	612			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	275	3676	0	0	2729	1442	351	0	531			
Arrive On Green	0.16	0.73	0.00	0.00	0.36	0.36	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2661	1757	0	2656			
Grp Volume(v), veh/h	255	1449	0	0	2041	1122	102	0	612			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1330	1757	0	1328			
Q Serve(g_s), s	21.5	16.4	0.0	0.0	53.2	56.2	7.4	0.0	30.0			
Cycle Q Clear(g_c), s	21.5	16.4	0.0	0.0	53.2	56.2	7.4	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	275	3676	0	0	2729	1442	351	0	531			
V/C Ratio(X)	0.93	0.39	0.00	0.00	0.75	0.78	0.29	0.00	1.15			
Avail Cap(c_a), veh/h	351	3676	0	0	2729	1442	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.76	0.76	0.00	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	62.4	7.7	0.0	0.0	38.8	39.8	51.0	0.0	60.0			
Incr Delay (d2), s/veh	19.4	0.2	0.0	0.0	1.0	2.3	0.2	0.0	88.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.9	7.6	0.0	0.0	24.9	21.1	3.6	0.0	17.5			
LnGrp Delay(d),s/veh	81.8	7.9	0.0	0.0	39.9	42.1	51.1	0.0	148.3			
LnGrp LOS	F	A			D	D	D		F			
Approach Vol, veh/h		1704			3163			714				
Approach Delay, s/veh		19.0			40.6			134.4				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			28.2	86.7		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		18.4			23.5	58.2		32.0
Green Ext Time (p_c), s		2.7			0.0	4.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1380	200	270	2350	350	250	140	220	290	150	310
Future Volume (veh/h)	300	1380	200	270	2350	350	250	140	220	290	150	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	312	1438	208	281	2448	365	260	146	229	302	156	323
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	355	1594	230	610	2835	877	304	348	300	395	404	349
Arrive On Green	0.07	0.24	0.24	0.36	0.89	0.89	0.09	0.20	0.20	0.12	0.23	0.23
Sat Flow, veh/h	3408	4429	640	3408	6346	1557	3408	1752	1509	3408	1752	1514
Grp Volume(v), veh/h	312	1090	556	281	2448	365	260	146	229	302	156	323
Grp Sat Flow(s),veh/h/ln	1704	1679	1711	1704	1586	1557	1704	1752	1509	1704	1752	1514
Q Serve(g_s), s	13.6	47.2	47.3	9.5	27.0	1.7	11.3	10.9	21.5	12.9	11.3	31.3
Cycle Q Clear(g_c), s	13.6	47.2	47.3	9.5	27.0	1.7	11.3	10.9	21.5	12.9	11.3	31.3
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	1208	616	610	2835	877	304	348	300	395	404	349
V/C Ratio(X)	0.88	0.90	0.90	0.46	0.86	0.42	0.85	0.42	0.76	0.76	0.39	0.93
Avail Cap(c_a), veh/h	359	1298	662	610	2835	877	348	456	392	395	473	409
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	54.3	54.4	42.6	5.9	1.1	67.3	52.5	56.8	64.3	48.7	56.4
Incr Delay (d2), s/veh	17.1	9.1	16.0	0.0	0.7	0.3	15.1	0.3	4.4	7.8	0.2	23.2
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	7.3	23.5	25.2	4.5	10.7	0.7	5.9	5.3	9.3	6.5	5.5	15.3
LnGrp Delay(d),s/veh	85.9	63.5	70.4	42.6	6.6	1.4	82.5	52.8	61.2	72.1	49.0	79.6
LnGrp LOS	F	E	E	D	A	A	F	D	E	E	D	E
Approach Vol, veh/h		1958			3094			635			781	
Approach Delay, s/veh		69.0			9.2			68.0			70.6	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.8	60.0	17.6	39.6	19.8	73.0	22.4	34.8
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	16.8	* 58	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	11.5	49.3	13.3	33.3	15.6	29.0	14.9	23.5
Green Ext Time (p_c), s	0.3	4.7	0.1	1.3	0.0	19.4	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	1530	180	350	2450	180	400	70	290	260	90	260
Future Volume (veh/h)	230	1530	180	350	2450	180	400	70	290	260	90	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	240	1594	188	365	2552	188	417	245	188	271	94	271
Adj No. of Lanes	2	3	1	1	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	538	2101	820	319	2159	821	382	314	256	335	295	240
Arrive On Green	0.21	0.55	0.55	0.36	0.86	0.86	0.11	0.17	0.17	0.10	0.16	0.16
Sat Flow, veh/h	3408	5036	1557	1757	5036	1557	3514	1845	1502	3408	1845	1499
Grp Volume(v), veh/h	240	1594	188	365	2552	188	417	245	188	271	94	271
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1757	1679	1557	1757	1845	1502	1704	1845	1499
Q Serve(g_s), s	9.2	36.5	7.8	27.2	64.3	0.0	16.3	19.1	12.6	11.7	6.8	17.4
Cycle Q Clear(g_c), s	9.2	36.5	7.8	27.2	64.3	0.0	16.3	19.1	12.6	11.7	6.8	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	2101	820	319	2159	821	382	314	256	335	295	240
V/C Ratio(X)	0.45	0.76	0.23	1.15	1.18	0.23	1.09	0.78	0.73	0.81	0.32	1.13
Avail Cap(c_a), veh/h	538	2101	820	319	2159	821	382	508	414	341	492	400
HCM Platoon Ratio	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	27.6	14.3	47.8	10.7	4.3	66.8	59.5	29.7	66.3	55.8	33.1
Incr Delay (d2), s/veh	0.1	1.5	0.4	69.4	82.5	0.1	73.1	1.6	1.5	12.4	0.2	78.1
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	4.3	17.1	3.4	19.2	43.7	1.0	11.8	9.9	5.3	6.1	3.5	12.4
LnGrp Delay(d),s/veh	53.6	29.1	14.7	117.2	93.2	4.4	140.0	61.1	31.3	78.7	56.0	111.2
LnGrp LOS	D	C	B	F	F	A	F	E	C	E	E	F
Approach Vol, veh/h		2022			3105			850			636	
Approach Delay, s/veh		30.6			90.6			93.2			89.2	
Approach LOS		C			F			F			F	

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	31.4	68.6	21.0	29.0	29.7	70.3	19.7	30.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 27	46.6	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	29.2	38.5	18.3	19.4	11.2	66.3	13.7	21.1
Green Ext Time (p_c), s	0.0	4.5	0.0	0.8	0.0	0.0	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	72.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2190	150	130	2830	90	180	50	100	220	60	240
Future Volume (veh/h)	90	2190	150	130	2830	90	180	50	100	220	60	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	96	2330	160	138	3011	96	191	53	106	234	64	255
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2270	833	215	2770	87	150	83	166	211	361	295
Arrive On Green	0.02	0.30	0.30	0.24	1.00	1.00	0.09	0.16	0.16	0.12	0.20	0.20
Sat Flow, veh/h	1757	5036	1551	1757	5010	158	1757	533	1065	1757	1845	1508
Grp Volume(v), veh/h	96	2330	160	138	2005	1102	191	0	159	234	64	255
Grp Sat Flow(s),veh/h/ln	1757	1679	1551	1757	1679	1810	1757	0	1598	1757	1845	1508
Q Serve(g_s), s	4.0	67.6	4.9	10.6	0.0	79.2	12.8	0.0	14.0	18.0	4.3	24.5
Cycle Q Clear(g_c), s	4.0	67.6	4.9	10.6	0.0	79.2	12.8	0.0	14.0	18.0	4.3	24.5
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	47	2270	833	215	1856	1001	150	0	249	211	361	295
V/C Ratio(X)	2.05	1.03	0.19	0.64	1.08	1.10	1.27	0.00	0.64	1.11	0.18	0.86
Avail Cap(c_a), veh/h	47	2270	833	215	1856	1001	150	0	362	211	480	392
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	52.4	8.8	53.7	0.0	0.0	68.6	0.0	59.4	66.0	50.3	58.4
Incr Delay (d2), s/veh	499.3	19.3	0.2	0.5	37.3	47.1	165.0	0.0	1.0	94.6	0.1	11.6
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	8.4	35.4	2.1	5.2	9.6	13.1	13.1	0.0	6.3	14.3	2.2	11.2
LnGrp Delay(d),s/veh	573.0	71.6	9.0	54.2	37.3	47.1	233.6	0.0	60.4	160.6	50.3	70.0
LnGrp LOS	F	F	A	D	F	F	F		E	F	D	E
Approach Vol, veh/h		2586			3245			350			553	
Approach Delay, s/veh		86.4			41.3			154.9			106.0	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	73.6	17.0	35.1	9.0	88.9	23.0	29.1
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	10.5	* 68	* 13	39.0	4.0	26.0	18.0	* 34
Max Q Clear Time (g_c+I1), s	12.6	69.6	14.8	26.5	6.0	81.2	20.0	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	69.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	1480	330	310	1870	110	220	290	180	50	500	630
Future Volume (veh/h)	200	1480	330	310	1870	110	220	290	180	50	500	630
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	225	1663	371	348	2101	124	247	326	202	56	562	708
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	411	1990	620	400	1904	588	223	1087	482	71	504	613
Arrive On Green	0.24	0.79	0.79	0.12	0.38	0.38	0.07	0.31	0.31	0.04	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	225	1663	371	348	2101	124	247	326	202	56	562	708
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	8.7	30.6	10.7	15.1	56.7	6.6	9.8	10.6	15.5	4.7	41.0	41.0
Cycle Q Clear(g_c), s	8.7	30.6	10.7	15.1	56.7	6.6	9.8	10.6	15.5	4.7	41.0	41.0
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	411	1990	620	400	1904	588	223	1087	482	71	504	613
V/C Ratio(X)	0.55	0.84	0.60	0.87	1.10	0.21	1.11	0.30	0.42	0.79	1.11	1.15
Avail Cap(c_a), veh/h	489	1990	620	920	1904	588	223	1087	482	85	504	613
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	12.7	6.3	65.1	46.6	21.3	70.1	39.4	41.0	71.3	54.5	45.4
Incr Delay (d2), s/veh	0.2	1.7	1.6	2.3	55.2	0.8	92.7	0.1	0.2	26.5	75.3	87.2
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	4.1	13.8	4.6	7.2	36.0	3.0	7.5	5.2	6.7	2.8	31.4	32.3
LnGrp Delay(d),s/veh	53.5	14.4	7.9	67.4	101.8	22.1	162.8	39.4	41.3	97.8	129.8	132.6
LnGrp LOS	D	B	A	E	F	C	F	D	D	F	F	F
Approach Vol, veh/h		2259			2573			775			1326	
Approach Delay, s/veh		17.2			93.3			79.2			129.9	
Approach LOS		B			F			E			F	

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	21.8	65.6	15.6	47.0	24.4	63.0	10.3	52.3
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 22	* 57	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	17.1	32.6	11.8	43.0	10.7	58.7	6.7	17.5
Green Ext Time (p_c), s	0.6	3.6	0.0	0.0	0.3	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1810	290	60	1590	60	420	50	200	430	150	220
Future Volume (veh/h)	50	1810	290	60	1590	60	420	50	200	430	150	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	54	1967	315	65	1728	65	457	54	217	467	163	239
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	109	1776	279	61	1816	68	503	64	259	377	514	424
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.15	0.21	0.21	0.21	0.28	0.28
Sat Flow, veh/h	1757	4363	684	1757	4972	187	3408	312	1255	1757	1845	1520
Grp Volume(v), veh/h	54	1504	778	65	1166	627	457	0	271	467	163	239
Grp Sat Flow(s),veh/h/ln	1757	1679	1689	1757	1679	1802	1704	0	1567	1757	1845	1520
Q Serve(g_s), s	4.5	61.1	61.1	5.2	50.7	50.8	19.8	0.0	24.9	32.2	10.5	16.3
Cycle Q Clear(g_c), s	4.5	61.1	61.1	5.2	50.7	50.8	19.8	0.0	24.9	32.2	10.5	16.3
Prop In Lane	1.00		0.41	1.00		0.10	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	109	1367	688	61	1226	658	503	0	323	377	514	424
V/C Ratio(X)	0.50	1.10	1.13	1.07	0.95	0.95	0.91	0.00	0.84	1.24	0.32	0.56
Avail Cap(c_a), veh/h	109	1367	688	61	1247	669	563	0	387	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	44.5	44.5	72.4	46.3	46.3	62.9	0.0	57.1	58.9	42.8	30.3
Incr Delay (d2), s/veh	1.3	56.8	76.3	135.2	16.4	25.2	16.5	0.0	11.3	128.0	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	39.1	43.0	4.8	26.3	29.8	10.5	0.0	11.8	29.0	5.4	7.0
LnGrp Delay(d),s/veh	69.4	101.2	120.8	209.5	62.7	71.5	79.5	0.0	68.4	186.9	42.9	31.0
LnGrp LOS	E	F	F	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2336			1858			728			869	
Approach Delay, s/veh		107.0			70.8			75.4			117.0	
Approach LOS		F			E			E			F	

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	9.4	67.5	26.3	46.8	15.7	61.2	37.2	35.9
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	7.2	63.1	21.8	18.3	6.5	52.8	34.2	26.9
Green Ext Time (p_c), s	0.0	0.0	0.3	0.9	0.0	2.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	92.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	2010	80	130	1510	80	170	30	330	110	30	70
Future Volume (veh/h)	50	2010	80	130	1510	80	170	30	330	110	30	70
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	56	2233	89	144	1678	89	189	33	367	122	33	78
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	2425	96	250	2945	156	317	473	389	188	53	103
Arrive On Green	0.04	0.49	0.49	0.14	0.60	0.60	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1757	4962	197	1757	4891	259	1256	1845	1518	590	205	400
Grp Volume(v), veh/h	56	1507	815	144	1151	616	189	33	367	233	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1801	1757	1679	1793	1256	1845	1518	1195	0	0
Q Serve(g_s), s	4.7	62.4	63.4	11.5	31.2	31.2	0.2	2.0	35.6	24.9	0.0	0.0
Cycle Q Clear(g_c), s	4.7	62.4	63.4	11.5	31.2	31.2	27.2	2.0	35.6	26.9	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.14	1.00		1.00	0.52		0.33
Lane Grp Cap(c), veh/h	72	1641	880	250	2021	1079	317	473	389	343	0	0
V/C Ratio(X)	0.78	0.92	0.93	0.58	0.57	0.57	0.60	0.07	0.94	0.68	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	936	250	2021	1079	356	530	436	380	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.3	35.6	35.8	60.1	18.1	18.1	51.6	42.2	54.7	51.4	0.0	0.0
Incr Delay (d2), s/veh	6.6	9.7	16.9	2.1	1.2	2.2	1.1	0.0	26.7	3.1	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	2.4	31.1	35.6	5.7	14.7	16.0	7.3	1.0	17.8	9.2	0.0	0.0
LnGrp Delay(d),s/veh	77.9	45.3	52.7	62.3	19.2	20.3	52.7	42.3	81.4	54.6	0.0	0.0
LnGrp LOS	E	D	D	E	B	C	D	D	F	D		
Approach Vol, veh/h		2378			1911			589			233	
Approach Delay, s/veh		48.6			22.8			70.0			54.6	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.3	79.3		43.3	10.3	96.3		43.3
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	13.5	65.4		37.6	6.7	33.2		28.9
Green Ext Time (p_c), s	0.0	7.9		0.7	0.1	0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	1780	240	580	1150	590	380	1130	660	760	1060	250
Future Volume (veh/h)	420	1780	240	580	1150	590	380	1130	660	760	1060	250
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	447	1894	255	617	1223	628	404	1202	702	809	1128	266
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	495	1343	413	386	1183	640	409	1386	1072	630	1712	756
Arrive On Green	0.15	0.27	0.27	0.04	0.08	0.08	0.12	0.28	0.28	0.18	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2724	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	447	1894	255	617	1223	628	404	1202	702	809	1128	266
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	19.4	40.0	15.7	17.0	35.2	22.6	17.8	34.1	14.3	27.7	28.6	15.9
Cycle Q Clear(g_c), s	19.4	40.0	15.7	17.0	35.2	22.6	17.8	34.1	14.3	27.7	28.6	15.9
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	495	1343	413	386	1183	640	409	1386	1072	630	1712	756
V/C Ratio(X)	0.90	1.41	0.62	1.60	1.03	0.98	0.99	0.87	0.65	1.28	0.66	0.35
Avail Cap(c_a), veh/h	591	1343	413	386	1183	640	409	1578	1177	630	1712	756
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.28	0.28	0.28	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	63.1	55.0	25.5	72.2	69.2	29.4	65.9	51.8	37.6	61.1	42.1	24.0
Incr Delay (d2), s/veh	14.2	189.2	2.0	272.2	23.5	14.4	41.1	7.5	3.1	129.1	0.2	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	10.1	42.0	7.0	22.6	19.0	9.8	10.7	16.8	5.8	24.3	13.3	6.8
LnGrp Delay(d),s/veh	77.3	244.2	27.6	344.4	92.7	43.9	107.0	59.3	40.7	190.2	42.3	24.1
LnGrp LOS	E	F	C	F	F	D	F	E	D	F	D	C
Approach Vol, veh/h		2596			2468			2308			2203	
Approach Delay, s/veh		194.2			143.2			62.0			94.4	
Approach LOS		F			F			E			F	

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	23.0	46.0	24.0	57.0	27.8	41.2	33.7	47.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	19.8	30.6	21.4	37.2	29.7	36.1
Green Ext Time (p_c), s	0.0	0.0	0.0	6.3	0.4	0.0	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	126.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2810	320	130	1800	70	260	50	300	130	70	370
Future Volume (veh/h)	140	2810	320	130	1800	70	260	50	300	130	70	370
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	146	2927	333	135	1875	73	271	52	312	135	73	385
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	2595	881	744	4248	165	115	453	372	141	480	395
Arrive On Green	0.06	0.35	0.35	0.85	1.00	1.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1757	5036	1511	1757	4973	193	1757	1845	1516	1757	1845	1518
Grp Volume(v), veh/h	146	2927	333	135	1265	683	271	52	312	135	73	385
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1809	1757	1845	1516	1757	1845	1518
Q Serve(g_s), s	12.3	77.3	31.0	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Cycle Q Clear(g_c), s	12.3	77.3	31.0	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	2595	881	744	2868	1545	115	453	372	141	480	395
V/C Ratio(X)	0.86	1.13	0.38	0.18	0.44	0.44	2.36	0.11	0.84	0.96	0.15	0.98
Avail Cap(c_a), veh/h	704	2595	881	744	2868	1545	115	453	372	141	480	395
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	49.1	65.6	6.8	0.0	0.0	70.1	44.0	41.5	68.8	42.8	55.0
Incr Delay (d2), s/veh	0.5	58.1	0.1	0.0	0.2	0.4	638.6	0.0	14.7	63.3	0.1	38.5
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	6.0	49.8	13.0	1.0	0.1	0.2	25.1	1.7	12.3	8.1	2.3	20.0
LnGrp Delay(d),s/veh	69.6	107.2	65.7	6.8	0.2	0.4	708.7	44.0	56.3	132.1	42.8	93.5
LnGrp LOS	E	F	E	A	A	A	F	D	E	F	D	F
Approach Vol, veh/h		3406			2083			635			593	
Approach Delay, s/veh		101.5			0.7			333.7			96.1	
Approach LOS		F			A			F			F	

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	70.6	83.3	14.0	43.7	18.7	135.2	16.2	41.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	4.1	79.3	11.8	39.7	14.3	2.0	13.5	27.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	8.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	91.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	2610	250	530	1650	100	200	210	410	310	170	90
Future Volume (veh/h)	130	2610	250	530	1650	100	200	210	410	310	170	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	134	2691	258	546	1701	103	206	216	423	320	175	93
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	455	1903	588	609	1993	121	232	397	343	279	552	279
Arrive On Green	0.18	0.50	0.50	0.06	0.14	0.14	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1556	3408	4848	293	3408	1752	1514	3408	2245	1135
Grp Volume(v), veh/h	134	2691	258	546	1177	627	206	216	423	320	135	133
Grp Sat Flow(s),veh/h/ln	1704	1679	1556	1704	1679	1784	1704	1752	1514	1704	1752	1628
Q Serve(g_s), s	5.1	56.7	15.9	23.9	51.4	51.5	9.0	16.3	34.0	12.3	9.4	10.1
Cycle Q Clear(g_c), s	5.1	56.7	15.9	23.9	51.4	51.5	9.0	16.3	34.0	12.3	9.4	10.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	455	1903	588	609	1380	734	232	397	343	279	431	400
V/C Ratio(X)	0.29	1.41	0.44	0.90	0.85	0.85	0.89	0.54	1.23	1.15	0.31	0.33
Avail Cap(c_a), veh/h	455	1903	588	1370	1775	943	232	397	343	279	431	400
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.15	0.15	0.15	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	37.3	27.2	69.2	60.4	60.4	69.3	51.2	58.0	68.8	46.2	46.4
Incr Delay (d2), s/veh	0.0	186.9	0.4	0.8	3.0	5.5	30.6	0.9	127.6	98.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	59.1	6.8	11.4	24.5	26.6	5.2	8.0	26.4	9.6	4.6	4.6
LnGrp Delay(d),s/veh	55.6	224.2	27.5	70.0	63.4	66.0	100.0	52.0	185.6	167.7	46.3	46.6
LnGrp LOS	E	F	C	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		3083			2350			845			588	
Approach Delay, s/veh		200.4			65.6			130.6			112.4	
Approach LOS		F			E			F			F	

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	31.0	62.7	14.4	41.9	26.0	67.7	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	25.9	58.7	11.0	12.1	7.1	53.5	14.3	36.0
Green Ext Time (p_c), s	0.9	0.0	0.0	0.8	0.0	8.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	138.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1180	2150	550	270	1040	90	260	790	290	210	1150	820
Future Volume (veh/h)	1180	2150	550	270	1040	90	260	790	290	210	1150	820
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1255	2287	585	287	1106	96	277	840	309	223	1223	872
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	3079	954	314	1857	574	186	1599	535	209	872	1568
Arrive On Green	0.32	0.61	0.61	0.09	0.37	0.37	0.05	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	3408	5036	1560	3408	5036	1555	3408	6346	1549	3408	3505	2726
Grp Volume(v), veh/h	1255	2287	585	287	1106	96	277	840	309	223	1223	872
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1555	1704	1586	1549	1704	1752	1363
Q Serve(g_s), s	48.4	48.5	36.6	12.5	26.6	6.5	8.2	17.1	24.5	9.2	37.3	0.0
Cycle Q Clear(g_c), s	48.4	48.5	36.6	12.5	26.6	6.5	8.2	17.1	24.5	9.2	37.3	0.0
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	1100	3079	954	314	1857	574	186	1599	535	209	872	1568
V/C Ratio(X)	1.14	0.74	0.61	0.92	0.60	0.17	1.49	0.53	0.58	1.07	1.40	0.56
Avail Cap(c_a), veh/h	1100	3079	954	314	1857	574	186	1599	535	209	872	1568
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	20.7	19.8	67.5	38.3	34.3	70.9	48.4	40.3	70.4	56.3	20.1
Incr Delay (d2), s/veh	64.7	0.2	0.3	29.5	0.4	0.1	245.4	0.2	1.0	81.1	188.4	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	32.6	22.3	15.7	7.2	12.5	2.8	10.2	7.5	10.7	6.7	40.8	11.2
LnGrp Delay(d),s/veh	115.5	20.9	20.1	97.0	38.7	34.3	316.3	48.5	41.3	151.5	244.7	20.4
LnGrp LOS	F	C	C	F	D	C	F	D	D	F	F	C
Approach Vol, veh/h		4127			1489			1426			2318	
Approach Delay, s/veh		49.6			49.6			99.0			151.4	
Approach LOS		D			D			F			F	

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	18.0	97.7	14.2	43.0	54.4	61.3	13.4	43.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 14	70.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.5	50.5	10.2	39.3	50.4	28.6	11.2	26.5
Green Ext Time (p_c), s	0.0	12.7	0.0	0.0	0.0	2.9	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	82.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	140	320	50	190	80	1420	210	280	1800	60
Future Volume (veh/h)	190	30	140	320	50	190	80	1420	210	280	1800	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	196	31	144	330	52	196	82	1464	216	289	1856	62
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	40	246	378	71	267	70	1182	360	430	2287	707
Arrive On Green	0.16	0.16	0.16	0.22	0.22	0.22	0.04	0.23	0.23	0.24	0.45	0.45
Sat Flow, veh/h	1527	241	1500	1757	329	1242	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	227	0	144	330	0	248	82	1464	216	289	1856	62
Grp Sat Flow(s),veh/h/ln	1768	0	1500	1757	0	1571	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	18.5	0.0	13.3	27.2	0.0	22.1	6.0	35.2	18.8	22.3	47.8	3.4
Cycle Q Clear(g_c), s	18.5	0.0	13.3	27.2	0.0	22.1	6.0	35.2	18.8	22.3	47.8	3.4
Prop In Lane	0.86		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	0	246	378	0	338	70	1182	360	430	2287	707
V/C Ratio(X)	0.78	0.00	0.59	0.87	0.00	0.73	1.17	1.24	0.60	0.67	0.81	0.09
Avail Cap(c_a), veh/h	448	0	380	468	0	419	70	1182	360	430	2287	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	0.0	58.0	56.9	0.0	54.8	72.0	57.4	51.1	51.2	35.4	23.3
Incr Delay (d2), s/veh	2.0	0.0	0.8	12.2	0.0	3.5	159.4	114.9	7.2	3.3	3.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	5.6	14.5	0.0	9.9	6.0	28.9	8.7	11.2	22.9	1.5
LnGrp Delay(d),s/veh	62.2	0.0	58.8	69.1	0.0	58.4	231.5	172.3	58.3	54.5	38.7	23.5
LnGrp LOS	E		E	E		E	F	F	E	D	D	C
Approach Vol, veh/h		371			578			1762			2207	
Approach Delay, s/veh		60.9			64.5			161.1			40.3	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	43.1	41.6		28.8	10.2	74.5		36.5
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 18	* 35		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	24.3	37.2		20.5	8.0	49.8		29.2
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	0.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	88.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	20	510	20	20	20	190	1460	20	40	1890	110
Future Volume (veh/h)	310	20	510	20	20	20	190	1460	20	40	1890	110
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		0.97	1.00		0.93	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	220	0	647	21	21	21	196	1505	21	41	1948	113
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	415	0	715	50	50	50	114	1775	786	47	2431	141
Arrive On Green	0.24	0.00	0.24	0.09	0.09	0.09	0.03	0.51	0.51	0.03	0.50	0.50
Sat Flow, veh/h	1757	0	3030	557	557	557	3408	3505	1552	1757	4864	281
Grp Volume(v), veh/h	220	0	647	63	0	0	196	1505	21	41	1342	719
Grp Sat Flow(s),veh/h/ln	1757	0	1515	1670	0	0	1704	1752	1552	1757	1679	1788
Q Serve(g_s), s	16.4	0.0	31.1	5.4	0.0	0.0	5.0	55.7	1.0	3.5	50.0	50.4
Cycle Q Clear(g_c), s	16.4	0.0	31.1	5.4	0.0	0.0	5.0	55.7	1.0	3.5	50.0	50.4
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	415	0	715	149	0	0	114	1775	786	47	1678	894
V/C Ratio(X)	0.53	0.00	0.90	0.42	0.00	0.00	1.73	0.85	0.03	0.88	0.80	0.80
Avail Cap(c_a), veh/h	445	0	768	445	0	0	114	1775	786	47	1678	894
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	0.0	55.7	64.6	0.0	0.0	72.5	32.0	18.5	72.8	31.3	31.4
Incr Delay (d2), s/veh	1.1	0.0	13.6	1.9	0.0	0.0	360.5	5.2	0.1	85.7	4.1	7.6
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	8.1	0.0	14.3	2.5	0.0	0.0	8.0	28.3	0.5	2.8	24.1	26.6
LnGrp Delay(d),s/veh	51.1	0.0	69.3	66.5	0.0	0.0	433.0	37.2	18.6	158.5	35.4	39.0
LnGrp LOS	D		E	E			F	D	B	F	D	D
Approach Vol, veh/h		867			63			1722			2102	
Approach Delay, s/veh		64.7			66.5			82.1			39.0	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	82.0		40.4	11.0	81.0		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.0	45.8		40.0
Max Q Clear Time (g_c+I1), s	5.5	57.7		33.1	7.0	52.4		7.4
Green Ext Time (p_c), s	0.0	0.0		1.7	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	59.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	30	30	320	70	140	50	1470	540	250	2170	50
Future Volume (veh/h)	30	30	30	320	70	140	50	1470	540	250	2170	50
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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	32	32	32	344	75	151	54	1581	581	269	2333	54
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	67	205	171	388	375	323	584	2746	850	313	2298	53
Arrive On Green	0.02	0.12	0.12	0.11	0.21	0.21	0.17	0.55	0.55	0.09	0.45	0.45
Sat Flow, veh/h	3408	1768	1468	3408	1752	1512	3408	5036	1559	3408	5061	117
Grp Volume(v), veh/h	32	32	32	344	75	151	54	1581	581	269	1545	842
Grp Sat Flow(s),veh/h/ln	1704	1752	1484	1704	1752	1512	1704	1679	1559	1704	1679	1821
Q Serve(g_s), s	1.4	2.4	3.0	14.9	5.3	13.1	2.0	31.2	23.8	11.7	68.1	68.1
Cycle Q Clear(g_c), s	1.4	2.4	3.0	14.9	5.3	13.1	2.0	31.2	23.8	11.7	68.1	68.1
Prop In Lane	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	67	204	172	388	375	323	584	2746	850	313	1524	827
V/C Ratio(X)	0.48	0.16	0.19	0.89	0.20	0.47	0.09	0.58	0.68	0.86	1.01	1.02
Avail Cap(c_a), veh/h	91	456	386	427	625	539	584	2746	850	357	1524	827
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	72.8	59.7	59.9	65.5	48.4	51.5	52.3	22.6	8.5	67.1	41.0	41.0
Incr Delay (d2), s/veh	2.0	0.1	0.2	17.4	0.1	0.4	0.1	0.9	4.4	15.4	26.4	36.1
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	0.7	1.2	1.2	8.0	2.6	5.5	1.0	14.6	11.2	6.2	37.1	42.5
LnGrp Delay(d),s/veh	74.7	59.8	60.1	82.9	48.5	51.9	52.5	23.5	13.0	82.5	67.4	77.1
LnGrp LOS	E	E	E	F	D	D	D	C	B	F	F	F
Approach Vol, veh/h		96			570			2216			2656	
Approach Delay, s/veh		64.9			70.1			21.4			72.0	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	87.8	22.1	22.1	31.7	74.1	7.1	37.1
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	13.7	33.2	16.9	5.0	4.0	70.1	3.4	15.1
Green Ext Time (p_c), s	0.1	21.6	0.2	0.2	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	250	621	82	1010	20	191	20	31	20	20	20
Future Volume (veh/h)	20	250	621	82	1010	20	191	20	31	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.95	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	22	278	690	91	1122	22	134	131	34	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	420	909	795	115	1211	24	256	203	53	28	28	28
Arrive On Green	0.24	0.52	0.52	0.07	0.34	0.34	0.15	0.15	0.15	0.05	0.05	0.05
Sat Flow, veh/h	1757	1752	1534	1757	3512	69	1757	1397	363	551	551	551
Grp Volume(v), veh/h	22	278	690	91	560	584	134	0	165	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1534	1757	1752	1829	1757	0	1760	1652	0	0
Q Serve(g_s), s	1.0	9.1	39.4	5.1	30.8	30.8	7.1	0.0	8.8	4.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.1	39.4	5.1	30.8	30.8	7.1	0.0	8.8	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.21	0.33		0.33
Lane Grp Cap(c), veh/h	420	909	795	115	604	630	256	0	256	83	0	0
V/C Ratio(X)	0.05	0.31	0.87	0.79	0.93	0.93	0.52	0.00	0.64	0.79	0.00	0.00
Avail Cap(c_a), veh/h	420	909	795	141	613	640	580	0	581	99	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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.3	13.8	21.1	46.1	31.5	31.5	39.5	0.0	40.3	47.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	12.3	17.6	22.4	21.8	1.2	0.0	2.0	25.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.6	19.2	3.0	18.5	19.2	3.5	0.0	4.5	2.4	0.0	0.0
LnGrp Delay(d),s/veh	29.3	14.6	33.4	63.6	53.9	53.3	40.7	0.0	42.3	72.0	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D		D	E		
Approach Vol, veh/h		990			1235			299			66	
Approach Delay, s/veh		28.0			54.4			41.6			72.0	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.5	57.8		10.0	29.9	40.5		19.6
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	7.1	41.4		6.0	3.0	32.8		10.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.7		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	2258	700	200	652	210	130	220	20	420	390	410
Future Volume (veh/h)	210	2258	700	200	652	210	130	220	20	420	390	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	228	2454	0	217	709	228	141	239	22	457	424	446
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	2072	645	470	3265	1012	105	991	90	105	536	466
Arrive On Green	0.04	0.41	0.00	0.27	0.65	0.65	0.03	0.31	0.31	0.03	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1561	3408	3239	295	3408	1752	1523
Grp Volume(v), veh/h	228	2454	0	217	709	228	141	128	133	457	424	446
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1561	1704	1752	1782	1704	1752	1523
Q Serve(g_s), s	5.0	53.5	0.0	13.4	7.5	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Cycle Q Clear(g_c), s	5.0	53.5	0.0	13.4	7.5	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	68	2072	645	470	3265	1012	105	536	545	105	536	466
V/C Ratio(X)	3.37	1.18	0.00	0.46	0.22	0.23	1.34	0.24	0.24	4.36	0.79	0.96
Avail Cap(c_a), veh/h	68	2072	645	470	3265	1012	105	539	548	105	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	39.8	9.4	9.4	63.0	33.8	33.8	63.0	41.3	44.3
Incr Delay (d2), s/veh	1105.0	88.1	0.0	0.3	0.2	0.5	205.6	0.1	0.1	1533.0	7.2	30.6
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	23.2	41.7	0.0	6.5	3.5	3.5	4.9	3.5	3.6	24.2	15.0	19.7
LnGrp Delay(d),s/veh	1167.5	126.3	0.0	40.0	9.5	9.9	268.6	33.9	33.9	1596.0	48.5	74.9
LnGrp LOS	F	F		D	A	A	F	C	C	F	D	E
Approach Vol, veh/h		2682			1154			402			1327	
Approach Delay, s/veh		214.9			15.3			116.2			590.3	
Approach LOS		F			B			F			F	

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	41.5	59.5	9.0	46.3	10.0	91.0	9.0	46.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	15.4	55.5	6.0	39.4	7.0	9.8	6.0	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.2	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	255.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	430	173	210	420	90	272	310	390	260	540	130
Future Volume (veh/h)	70	430	173	210	420	90	272	310	390	260	540	130
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	76	467	188	228	457	98	296	337	424	283	587	141
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	97	682	272	136	868	185	264	571	497	264	909	218
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.30	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	1757	2424	967	1757	2860	608	3408	1752	1524	3408	2789	668
Grp Volume(v), veh/h	76	337	318	228	279	276	296	337	424	283	368	360
Grp Sat Flow(s),veh/h/ln	1757	1752	1639	1757	1752	1716	1704	1752	1524	1704	1752	1704
Q Serve(g_s), s	3.6	14.3	14.6	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.1	15.2
Cycle Q Clear(g_c), s	3.6	14.3	14.6	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.1	15.2
Prop In Lane	1.00		0.59	1.00		0.35	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	97	493	461	136	532	521	264	571	497	264	571	555
V/C Ratio(X)	0.78	0.68	0.69	1.68	0.52	0.53	1.12	0.59	0.85	1.07	0.64	0.65
Avail Cap(c_a), veh/h	119	751	702	136	768	752	264	647	562	264	647	629
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	39.2	26.8	26.9	38.8	24.2	24.3	38.8	23.6	26.5	38.8	24.2	24.2
Incr Delay (d2), s/veh	23.3	1.7	1.9	334.7	0.8	0.8	92.5	1.1	11.1	76.2	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.1	6.8	15.8	5.5	5.4	6.4	6.6	10.7	5.8	7.6	7.4
LnGrp Delay(d),s/veh	62.5	28.5	28.8	373.5	25.0	25.1	131.2	24.8	37.6	115.0	26.0	26.1
LnGrp LOS	E	C	C	F	C	C	F	C	D	F	C	C
Approach Vol, veh/h		731			783			1057			1011	
Approach Delay, s/veh		32.2			126.5			59.7			51.0	
Approach LOS		C			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	33.4	11.0	28.6	11.0	33.4	9.1	30.5
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	8.5	23.8	8.5	16.6	8.5	17.2	5.6	13.2
Green Ext Time (p_c), s	0.0	2.6	0.0	3.8	0.0	3.4	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	66.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	350	190	225	860	200	800	722	153	500	1788	250
Future Volume (veh/h)	60	350	190	225	860	200	800	722	153	500	1788	250
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	65	380	207	245	935	217	870	785	166	543	1943	272
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	1240	550	105	1084	471	2011	3269	685	414	1530	472
Arrive On Green	0.10	0.35	0.35	0.06	0.31	0.31	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1523	3408	4158	871	3408	5036	1552
Grp Volume(v), veh/h	65	380	207	245	935	217	870	632	319	543	1943	272
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1523	1704	1679	1672	1704	1679	1552
Q Serve(g_s), s	4.5	10.2	8.8	7.8	32.7	20.9	18.3	6.5	6.5	15.8	39.5	19.2
Cycle Q Clear(g_c), s	4.5	10.2	8.8	7.8	32.7	20.9	18.3	6.5	6.5	15.8	39.5	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	173	1240	550	105	1084	471	2011	2639	1314	414	1530	472
V/C Ratio(X)	0.38	0.31	0.38	2.32	0.86	0.46	0.43	0.24	0.24	1.31	1.27	0.58
Avail Cap(c_a), veh/h	173	1240	550	105	1286	559	2011	2639	1314	414	1530	472
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	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	30.4	14.7	61.1	42.3	71.2	14.7	3.7	3.7	57.1	45.3	38.2
Incr Delay (d2), s/veh	6.1	0.6	2.0	624.5	4.8	0.3	0.0	0.2	0.3	156.3	126.7	5.1
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	2.5	5.1	4.1	22.1	16.6	8.8	8.6	3.0	3.1	16.4	36.2	8.9
LnGrp Delay(d),s/veh	61.0	31.1	16.6	685.6	47.1	71.5	14.7	3.8	4.0	213.4	172.0	43.3
LnGrp LOS	E	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		652			1397			1821			2758	
Approach Delay, s/veh		29.5			162.9			9.0			167.4	
Approach LOS		C			F			A			F	

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	20.0	110.0	12.0	51.0	84.5	45.5	17.8	45.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.3	* 40	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.5	9.8	12.2	20.3	41.5	6.5	34.7
Green Ext Time (p_c), s	0.0	4.8	0.0	2.1	0.0	0.0	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	109.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	612	90	0	771	363	0	0	0	1329	0	450
Future Volume (veh/h)	0	612	90	0	771	363	0	0	0	1329	0	450
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	680	100	0	857	0				1477	0	500
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1370	199	0	1081	484				1575	0	724
Arrive On Green	0.00	0.31	0.31	0.00	0.31	0.00				0.46	0.00	0.46
Sat Flow, veh/h	0	4607	647	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	512	268	0	857	0				1477	0	500
Grp Sat Flow(s),veh/h/ln	0	1679	1731	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.7	5.8	0.0	10.2	0.0				18.8	0.0	11.5
Cycle Q Clear(g_c), s	0.0	5.7	5.8	0.0	10.2	0.0				18.8	0.0	11.5
Prop In Lane	0.00		0.37	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1035	534	0	1081	484				1575	0	724
V/C Ratio(X)	0.00	0.49	0.50	0.00	0.79	0.00				0.94	0.00	0.69
Avail Cap(c_a), veh/h	0	1769	912	0	1847	826				1893	0	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.9	12.9	0.0	14.5	0.0				11.7	0.0	9.7
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	0.5	0.0				8.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.8	0.0	5.0	0.0				10.4	0.0	5.1
LnGrp Delay(d),s/veh	0.0	13.0	13.2	0.0	15.0	0.0				19.7	0.0	10.9
LnGrp LOS		B	B		B					B		B
Approach Vol, veh/h		780			857						1977	
Approach Delay, s/veh		13.1			15.0						17.5	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		19.5		26.2		19.5		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		7.8		20.8		12.2		
Green Ext Time (p_c), s		1.0		0.3		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1861	0	0	994	513	80	0	1339	0	0	0
Future Volume (veh/h)	90	1861	0	0	994	513	80	0	1339	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1919	0	0	1025	529	82	0	1380			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	114	2044	0	0	1549	808	912	0	1401			
Arrive On Green	0.06	0.41	0.00	0.00	0.10	0.10	0.52	0.00	0.52			
Sat Flow, veh/h	1757	5202	0	0	5202	2628	1757	0	2699			
Grp Volume(v), veh/h	93	1919	0	0	1025	529	82	0	1380			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1314	1757	0	1350			
Q Serve(g_s), s	7.3	51.2	0.0	0.0	27.4	27.1	3.3	0.0	70.4			
Cycle Q Clear(g_c), s	7.3	51.2	0.0	0.0	27.4	27.1	3.3	0.0	70.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	114	2044	0	0	1549	808	912	0	1401			
V/C Ratio(X)	0.82	0.94	0.00	0.00	0.66	0.65	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2044	0	0	1549	808	926	0	1423			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	0.78	0.78	1.00	0.00	1.00			
Uniform Delay (d), s/veh	64.6	39.9	0.0	0.0	55.9	55.7	17.0	0.0	33.1			
Incr Delay (d2), s/veh	8.1	6.2	0.0	0.0	1.8	3.2	0.0	0.0	20.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.8	24.8	0.0	0.0	13.0	10.3	1.6	0.0	30.0			
LnGrp Delay(d),s/veh	72.7	46.1	0.0	0.0	57.6	59.0	17.0	0.0	53.2			
LnGrp LOS	E	D			E	E	B		D			
Approach Vol, veh/h		2012			1554			1462				
Approach Delay, s/veh		47.3			58.1			51.1				
Approach LOS		D			E			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.2			13.8	48.5		77.8
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		53.2			9.3	29.4		72.4
Green Ext Time (p_c), s		1.3			0.0	1.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	2910	150	111	1247	221	150	50	111	101	50	90
Future Volume (veh/h)	150	2910	150	111	1247	221	150	50	111	101	50	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	160	3096	160	118	1327	235	160	53	118	107	53	96
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1277	3087	157	122	1761	489	207	279	238	127	228	193
Arrive On Green	0.12	0.21	0.21	0.01	0.09	0.09	0.06	0.16	0.16	0.04	0.13	0.13
Sat Flow, veh/h	3408	4903	249	3408	6346	1551	3408	1752	1499	3408	1752	1488
Grp Volume(v), veh/h	160	2101	1155	118	1327	235	160	53	118	107	53	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1795	1704	1586	1551	1704	1752	1499	1704	1752	1488
Q Serve(g_s), s	5.9	87.5	88.1	4.8	28.6	12.7	6.5	3.7	10.1	4.4	3.8	8.4
Cycle Q Clear(g_c), s	5.9	87.5	88.1	4.8	28.6	12.7	6.5	3.7	10.1	4.4	3.8	8.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1277	2113	1130	122	1761	489	207	279	238	127	228	193
V/C Ratio(X)	0.13	0.99	1.02	0.97	0.75	0.48	0.77	0.19	0.49	0.85	0.23	0.50
Avail Cap(c_a), veh/h	1277	2113	1130	122	3010	794	236	488	418	127	432	367
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	55.2	55.5	69.1	58.9	33.4	64.8	51.0	53.7	67.0	54.7	56.7
Incr Delay (d2), s/veh	0.0	7.6	18.1	57.6	2.1	2.3	10.9	0.1	0.6	36.5	0.2	0.7
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	2.8	43.0	49.5	3.3	12.8	5.8	3.4	1.8	4.2	2.7	1.9	3.5
LnGrp Delay(d),s/veh	40.9	62.8	73.6	126.7	61.0	35.6	75.7	51.2	54.3	103.5	54.8	57.4
LnGrp LOS	D	E	F	F	E	D	E	D	D	F	D	E
Approach Vol, veh/h		3416			1680			331			256	
Approach Delay, s/veh		65.4			62.1			64.2			76.1	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	94.1	13.5	23.2	58.5	44.9	9.4	27.3
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.8	90.1	8.5	10.4	7.9	30.6	6.4	12.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.1	8.3	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	64.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	2662	210	130	1239	230	130	40	190	131	40	90
Future Volume (veh/h)	190	2662	210	130	1239	230	130	40	190	131	40	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	2832	223	138	1318	245	138	0	231	139	43	96
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1249	3207	1053	118	1635	560	133	0	350	122	214	172
Arrive On Green	0.73	1.00	1.00	0.02	0.11	0.11	0.04	0.00	0.12	0.04	0.12	0.12
Sat Flow, veh/h	3408	5036	1561	1757	5036	1553	3514	0	2964	3408	1845	1481
Grp Volume(v), veh/h	202	2832	223	138	1318	245	138	0	231	139	43	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1553	1757	0	1482	1704	1845	1481
Q Serve(g_s), s	2.5	0.0	0.0	9.4	35.8	15.5	5.3	0.0	8.9	5.0	3.0	4.3
Cycle Q Clear(g_c), s	2.5	0.0	0.0	9.4	35.8	15.5	5.3	0.0	8.9	5.0	3.0	4.3
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	1249	3207	1053	118	1635	560	133	0	350	122	214	172
V/C Ratio(X)	0.16	0.88	0.21	1.17	0.81	0.44	1.04	0.00	0.66	1.14	0.20	0.56
Avail Cap(c_a), veh/h	1249	3207	1053	118	2266	755	133	0	860	122	531	426
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.69	0.69	0.69	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.0	0.0	68.4	58.2	46.8	67.3	0.0	42.8	67.5	56.0	14.4
Incr Delay (d2), s/veh	0.0	0.4	0.0	121.9	3.0	1.7	88.4	0.0	0.8	124.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.0	8.6	17.2	6.9	4.2	0.0	3.7	4.5	1.5	1.8
LnGrp Delay(d),s/veh	12.2	0.4	0.0	190.3	61.2	48.5	156.1	0.0	43.6	192.3	56.2	15.5
LnGrp LOS	B	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		3257			1701			369			278	
Approach Delay, s/veh		1.1			69.9			85.7			110.2	
Approach LOS		A			E			F			F	

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	13.6	95.1	10.0	21.3	57.3	51.5	10.0	21.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.3	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.4	2.0	7.3	6.3	4.5	37.8	7.0	10.9
Green Ext Time (p_c), s	0.0	30.0	0.0	0.3	0.2	7.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2753	110	80	1489	160	80	30	111	70	20	80
Future Volume (veh/h)	160	2753	110	80	1489	160	80	30	111	70	20	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	172	2960	118	86	1601	172	86	32	119	75	22	86
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	193	2439	822	295	2528	271	79	44	162	94	270	219
Arrive On Green	0.22	0.97	0.97	0.34	1.00	1.00	0.05	0.13	0.13	0.05	0.15	0.15
Sat Flow, veh/h	1757	5036	1552	1757	4600	493	1757	329	1223	1757	1845	1495
Grp Volume(v), veh/h	172	2960	118	86	1168	605	86	0	151	75	22	86
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1736	1757	0	1552	1757	1845	1495
Q Serve(g_s), s	13.3	67.8	0.1	5.0	0.0	0.0	6.3	0.0	13.1	5.9	1.4	7.3
Cycle Q Clear(g_c), s	13.3	67.8	0.1	5.0	0.0	0.0	6.3	0.0	13.1	5.9	1.4	7.3
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	193	2439	822	295	1845	954	79	0	205	94	270	219
V/C Ratio(X)	0.89	1.21	0.14	0.29	0.63	0.63	1.09	0.00	0.74	0.80	0.08	0.39
Avail Cap(c_a), veh/h	238	2439	822	295	1845	954	79	0	405	113	514	416
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.61	0.61	0.61	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	2.2	0.3	40.4	0.0	0.0	66.8	0.0	58.4	65.5	51.6	54.1
Incr Delay (d2), s/veh	3.2	96.5	0.0	0.1	1.0	2.0	127.2	0.0	1.9	23.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	39.4	0.1	2.4	0.3	0.5	5.8	0.0	5.7	3.5	0.7	3.0
LnGrp Delay(d),s/veh	57.0	98.7	0.4	40.5	1.0	2.0	194.6	0.0	60.3	88.6	51.7	54.5
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	D
Approach Vol, veh/h		3250			1859			237			183	
Approach Delay, s/veh		93.0			3.2			109.1			68.2	
Approach LOS		F			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.5	73.8	10.5	26.2	20.4	82.9	12.5	24.2
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	6.8	* 68	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	7.0	69.8	8.3	9.3	15.3	2.0	7.9	15.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.1	12.7	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	62.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	770	1904	180	172	1199	62	210	520	293	63	230	200
Future Volume (veh/h)	770	1904	180	172	1199	62	210	520	293	63	230	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	828	2047	194	185	1289	67	226	559	315	68	247	215
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1013	2497	777	214	1241	382	298	862	381	86	359	766
Arrive On Green	0.59	0.99	0.99	0.06	0.25	0.25	0.09	0.25	0.25	0.05	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1549	3408	3505	1549	1757	1845	1544
Grp Volume(v), veh/h	828	2047	194	185	1289	67	226	559	315	68	247	215
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1549	1704	1752	1549	1757	1845	1544
Q Serve(g_s), s	26.8	2.6	0.1	7.5	34.5	4.0	9.1	20.0	26.9	5.4	17.4	0.0
Cycle Q Clear(g_c), s	26.8	2.6	0.1	7.5	34.5	4.0	9.1	20.0	26.9	5.4	17.4	0.0
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	1013	2497	777	214	1241	382	298	862	381	86	359	766
V/C Ratio(X)	0.82	0.82	0.25	0.86	1.04	0.18	0.76	0.65	0.83	0.79	0.69	0.28
Avail Cap(c_a), veh/h	1013	2497	777	214	1241	382	298	1054	466	114	540	918
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	0.3	0.1	65.0	52.8	29.0	62.4	47.3	50.0	65.9	52.4	21.0
Incr Delay (d2), s/veh	1.0	0.6	0.2	27.5	36.2	1.0	9.6	0.5	8.2	17.2	0.9	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	12.6	0.5	0.1	4.4	20.1	1.8	4.7	9.8	12.4	3.0	9.0	4.9
LnGrp Delay(d),s/veh	26.4	1.0	0.3	92.5	88.9	30.0	72.0	47.9	58.2	83.1	53.3	21.0
LnGrp LOS	C	A	A	F	F	C	E	D	E	F	D	C
Approach Vol, veh/h		3069			1541			1100			530	
Approach Delay, s/veh		7.8			86.8			55.8			44.0	
Approach LOS		A			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	75.7	18.1	33.2	47.9	40.8	11.0	40.2
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	9.5	4.6	11.1	19.4	28.8	36.5	7.4	28.9
Green Ext Time (p_c), s	0.0	14.1	0.0	1.1	0.9	0.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1666	410	210	1207	370	150	100	70	70	40	76
Future Volume (veh/h)	184	1666	410	210	1207	370	150	100	70	70	40	76
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	200	1811	446	228	1312	402	163	109	76	76	43	83
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	446	2052	491	247	1444	441	186	163	114	94	301	245
Arrive On Green	0.25	0.51	0.51	0.14	0.38	0.38	0.05	0.16	0.16	0.05	0.16	0.16
Sat Flow, veh/h	1757	4026	963	1757	3783	1155	3408	993	693	1757	1845	1500
Grp Volume(v), veh/h	200	1501	756	228	1164	550	163	0	185	76	43	83
Grp Sat Flow(s),veh/h/ln	1757	1679	1631	1757	1679	1581	1704	0	1686	1757	1845	1500
Q Serve(g_s), s	14.4	59.5	63.5	19.2	49.2	49.5	7.1	0.0	15.5	6.4	3.0	4.5
Cycle Q Clear(g_c), s	14.4	59.5	63.5	19.2	49.2	49.5	7.1	0.0	15.5	6.4	3.0	4.5
Prop In Lane	1.00		0.59	1.00		0.73	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	446	1711	831	247	1281	603	186	0	277	94	301	245
V/C Ratio(X)	0.45	0.88	0.91	0.92	0.91	0.91	0.87	0.00	0.67	0.81	0.14	0.34
Avail Cap(c_a), veh/h	446	1711	831	247	1419	668	186	0	429	94	467	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	32.6	33.6	63.6	43.9	44.0	70.4	0.0	58.8	70.3	53.8	20.4
Incr Delay (d2), s/veh	0.3	6.7	15.6	36.4	11.0	20.5	32.8	0.0	1.0	37.4	0.1	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	7.0	29.1	32.2	11.8	24.7	25.0	4.2	0.0	7.3	4.1	1.5	1.9
LnGrp Delay(d),s/veh	47.4	39.3	49.2	100.1	54.9	64.5	103.2	0.0	59.9	107.6	53.9	20.7
LnGrp LOS	D	D	D	F	D	E	F		E	F	D	C
Approach Vol, veh/h		2457			1942			348			202	
Approach Delay, s/veh		43.0			62.9			80.2			60.5	
Approach LOS		D			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.3	82.8	12.4	29.5	44.5	63.6	12.2	29.7
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	21.2	65.5	9.1	6.5	16.4	51.5	8.4	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.1	5.7	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	1360	190	290	1570	197	60	30	80	94	27	47
Future Volume (veh/h)	96	1360	190	290	1570	197	60	30	80	94	27	47
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.96	0.99		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	108	1528	213	326	1764	221	67	34	90	106	30	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	129	1631	227	580	2879	359	258	350	286	172	48	71
Arrive On Green	0.07	0.37	0.37	0.33	0.64	0.64	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1757	4442	618	1757	4525	564	1285	1845	1507	710	253	375
Grp Volume(v), veh/h	108	1154	587	326	1306	679	67	34	90	189	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1732	1285	1845	1507	1338	0	0
Q Serve(g_s), s	9.1	49.7	49.9	22.9	34.8	35.2	0.0	2.3	7.7	18.0	0.0	0.0
Cycle Q Clear(g_c), s	9.1	49.7	49.9	22.9	34.8	35.2	8.4	2.3	7.7	20.3	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.33	1.00		1.00	0.56		0.28
Lane Grp Cap(c), veh/h	129	1233	625	580	2136	1101	258	350	286	292	0	0
V/C Ratio(X)	0.84	0.94	0.94	0.56	0.61	0.62	0.26	0.10	0.31	0.65	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	580	2136	1101	349	481	393	389	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	68.6	45.8	45.8	41.3	16.3	16.3	52.6	50.1	52.3	57.7	0.0	0.0
Incr Delay (d2), s/veh	26.0	14.3	23.7	0.8	1.3	2.6	0.2	0.0	0.2	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	25.5	27.6	11.3	16.4	17.6	2.4	1.2	3.2	7.5	0.0	0.0
LnGrp Delay(d),s/veh	94.6	60.1	69.6	42.1	17.6	18.9	52.8	50.2	52.6	58.6	0.0	0.0
LnGrp LOS	F	E	E	D	B	B	D	D	D	E		
Approach Vol, veh/h		1849			2311			191			189	
Approach Delay, s/veh		65.1			21.4			52.2			58.6	
Approach LOS		E			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	55.5	61.1		33.4	15.2	101.4		33.4
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	24.9	51.9		10.4	11.1	37.2		22.3
Green Ext Time (p_c), s	0.4	3.1		0.4	0.0	10.9		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1044	355	800	1791	710	313	790	460	540	1150	403
Future Volume (veh/h)	205	1044	355	800	1791	710	313	790	460	540	1150	403
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	223	1135	386	870	1947	772	340	859	500	587	1250	438
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	558	1329	409	454	1175	636	389	1544	1214	464	1656	768
Arrive On Green	0.16	0.26	0.26	0.09	0.16	0.16	0.11	0.31	0.31	0.14	0.33	0.33
Sat Flow, veh/h	3408	5036	1550	3408	5036	2724	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	223	1135	386	870	1947	772	340	859	500	587	1250	438
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	8.8	32.1	36.6	20.0	35.0	35.0	14.7	21.4	10.1	20.4	33.2	9.1
Cycle Q Clear(g_c), s	8.8	32.1	36.6	20.0	35.0	35.0	14.7	21.4	10.1	20.4	33.2	9.1
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	558	1329	409	454	1175	636	389	1544	1214	464	1656	768
V/C Ratio(X)	0.40	0.85	0.94	1.91	1.66	1.21	0.87	0.56	0.41	1.26	0.75	0.57
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	464	1656	768
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	56.1	52.5	54.1	68.3	63.3	63.3	65.4	43.5	11.3	64.8	44.9	10.3
Incr Delay (d2), s/veh	0.2	5.3	29.8	412.3	296.0	98.0	8.6	1.5	1.0	120.8	0.3	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	4.2	15.6	19.1	35.4	48.4	21.8	7.4	10.1	4.0	17.4	15.4	6.8
LnGrp Delay(d),s/veh	56.3	57.7	83.9	480.6	359.3	161.2	74.0	44.9	12.3	185.6	45.2	10.5
LnGrp LOS	E	E	F	F	F	F	E	D	B	F	D	B
Approach Vol, veh/h		1744			3589			1699			2275	
Approach Delay, s/veh		63.3			346.1			41.2			74.8	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	45.6	23.1	55.3	30.6	41.0	26.4	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	38.6	16.7	35.2	10.8	37.0	22.4	23.4
Green Ext Time (p_c), s	0.0	0.9	0.4	4.0	0.3	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	171.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1433	331	390	2900	170	161	80	110	50	40	140
Future Volume (veh/h)	300	1433	331	390	2900	170	161	80	110	50	40	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	326	1558	360	424	3152	185	175	87	120	54	43	152
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	1686	583	559	2284	131	91	311	253	69	287	233
Arrive On Green	0.39	0.67	0.67	0.64	0.94	0.94	0.05	0.17	0.17	0.04	0.16	0.16
Sat Flow, veh/h	1757	5036	1497	1757	4869	280	1757	1845	1502	1757	1845	1498
Grp Volume(v), veh/h	326	1558	360	424	2154	1183	175	87	120	54	43	152
Grp Sat Flow(s),veh/h/ln	1757	1679	1497	1757	1679	1792	1757	1845	1502	1757	1845	1498
Q Serve(g_s), s	26.9	40.2	6.5	25.5	70.4	70.4	7.8	6.2	5.8	4.6	3.0	14.3
Cycle Q Clear(g_c), s	26.9	40.2	6.5	25.5	70.4	70.4	7.8	6.2	5.8	4.6	3.0	14.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1686	583	559	1575	841	91	311	253	69	287	233
V/C Ratio(X)	0.95	0.92	0.62	0.76	1.37	1.41	1.92	0.28	0.47	0.78	0.15	0.65
Avail Cap(c_a), veh/h	747	2192	733	559	1575	841	91	443	360	91	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.35	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	23.1	7.0	23.3	4.6	4.6	71.1	54.4	15.9	71.4	54.7	59.5
Incr Delay (d2), s/veh	2.5	4.1	1.8	0.5	165.6	184.1	449.8	0.2	0.5	19.6	0.1	1.1
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	13.3	18.8	3.2	12.1	62.0	70.5	15.2	3.2	2.4	2.6	1.5	6.0
LnGrp Delay(d),s/veh	47.4	27.2	8.7	23.8	170.2	188.7	520.9	54.6	16.4	91.0	54.8	60.6
LnGrp LOS	D	C	A	C	F	F	F	D	B	F	D	E
Approach Vol, veh/h		2244			3761			382			249	
Approach Delay, s/veh		27.2			159.5			256.2			66.2	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	53.7	56.2	12.0	28.1	33.5	76.4	10.1	30.0
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 64	23.3	* 7.8	* 36
Max Q Clear Time (g_c+I1), s	27.5	42.2	9.8	16.3	28.9	72.4	6.6	8.2
Green Ext Time (p_c), s	0.0	8.0	0.0	0.4	0.4	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	116.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1221	201	380	3228	210	161	140	140	120	200	101
Future Volume (veh/h)	131	1221	201	380	3228	210	161	140	140	120	200	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.96	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	142	1327	218	413	3509	228	175	152	152	130	217	110
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	320	2742	849	460	2771	176	132	274	234	120	347	169
Arrive On Green	0.19	1.00	1.00	0.27	1.00	1.00	0.04	0.16	0.16	0.04	0.15	0.15
Sat Flow, veh/h	3408	5036	1559	3408	4833	307	3408	1752	1498	3408	2272	1105
Grp Volume(v), veh/h	142	1327	218	413	2412	1325	175	152	152	130	165	162
Grp Sat Flow(s),veh/h/ln	1704	1679	1559	1704	1679	1783	1704	1752	1498	1704	1752	1624
Q Serve(g_s), s	5.5	0.0	0.0	17.5	86.0	81.7	5.8	12.0	14.3	5.3	13.2	14.1
Cycle Q Clear(g_c), s	5.5	0.0	0.0	17.5	86.0	81.7	5.8	12.0	14.3	5.3	13.2	14.1
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	320	2742	849	460	1925	1022	132	274	234	120	268	248
V/C Ratio(X)	0.44	0.48	0.26	0.90	1.25	1.30	1.33	0.56	0.65	1.08	0.62	0.65
Avail Cap(c_a), veh/h	320	2742	849	1518	1925	1022	132	403	345	120	397	368
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	0.0	0.0	53.8	0.0	0.0	72.1	58.5	59.4	72.3	59.4	59.8
Incr Delay (d2), s/veh	0.2	0.4	0.5	0.2	114.3	134.1	190.4	0.7	1.1	105.0	0.9	1.1
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	2.6	0.1	0.1	8.3	30.5	38.1	6.2	5.9	6.0	4.2	6.5	6.4
LnGrp Delay(d),s/veh	57.7	0.4	0.5	54.0	114.3	134.1	262.5	59.1	60.6	177.3	60.3	60.9
LnGrp LOS	E	A	A	D	F	F	F	E	E	F	E	E
Approach Vol, veh/h		1687			4150			479			457	
Approach Delay, s/veh		5.2			114.6			133.9			93.8	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.4	87.7	10.0	27.9	20.1	92.0	9.5	28.4
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	19.5	2.0	7.8	16.1	7.5	88.0	7.3	16.3
Green Ext Time (p_c), s	0.7	6.1	0.0	1.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	967	182	130	1872	100	603	870	240	90	1030	1433
Future Volume (veh/h)	502	967	182	130	1872	100	603	870	240	90	1030	1433
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	518	997	188	134	1930	103	622	897	247	93	1062	1477
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	591	2215	685	178	1544	476	495	2207	622	135	848	1138
Arrive On Green	0.35	0.88	0.88	0.05	0.31	0.31	0.15	0.35	0.35	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	518	997	188	134	1930	103	622	897	247	93	1062	1477
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1363
Q Serve(g_s), s	21.4	5.9	2.9	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.4
Cycle Q Clear(g_c), s	21.4	5.9	2.9	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	591	2215	685	178	1544	476	495	2207	622	135	848	1138
V/C Ratio(X)	0.88	0.45	0.27	0.75	1.25	0.22	1.26	0.41	0.40	0.69	1.25	1.30
Avail Cap(c_a), veh/h	591	2215	685	218	1544	476	495	2207	622	164	848	1138
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	5.4	5.2	70.1	52.0	29.0	64.1	37.2	32.1	71.1	56.9	23.7
Incr Delay (d2), s/veh	11.3	0.5	0.8	8.4	117.9	1.0	130.8	0.0	0.2	5.9	123.2	140.6
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	10.9	2.7	1.3	2.9	38.2	2.9	19.2	7.0	7.3	2.0	32.1	33.1
LnGrp Delay(d),s/veh	58.8	5.9	6.0	78.5	169.9	30.1	194.9	37.2	32.3	77.0	180.0	164.3
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	F	F
Approach Vol, veh/h		1703			2167			1766			2632	
Approach Delay, s/veh		22.0			157.6			92.0			167.5	
Approach LOS		C			F			F			F	

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	12.0	72.0	26.0	42.3	32.0	52.0	10.1	58.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	7.8	7.9	23.8	38.3	23.4	48.0	6.0	19.0
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.3	0.0	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	118.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	30	60	150	60	81	180	1672	160	351	1594	100
Future Volume (veh/h)	70	30	60	150	60	81	180	1672	160	351	1594	100
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	74	32	64	160	64	86	191	1779	170	373	1696	106
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	133	58	158	241	95	128	173	1289	394	630	2671	827
Arrive On Green	0.11	0.11	0.11	0.14	0.14	0.14	0.10	0.26	0.26	0.36	0.53	0.53
Sat Flow, veh/h	1244	538	1475	1757	693	931	1757	5036	1537	1757	5036	1559
Grp Volume(v), veh/h	106	0	64	160	0	150	191	1779	170	373	1696	106
Grp Sat Flow(s),veh/h/ln	1782	0	1475	1757	0	1624	1757	1679	1537	1757	1679	1559
Q Serve(g_s), s	8.5	0.0	6.1	13.0	0.0	13.2	14.8	38.4	13.9	25.9	35.8	5.1
Cycle Q Clear(g_c), s	8.5	0.0	6.1	13.0	0.0	13.2	14.8	38.4	13.9	25.9	35.8	5.1
Prop In Lane	0.70		1.00	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	0	158	241	0	223	173	1289	394	630	2671	827
V/C Ratio(X)	0.55	0.00	0.40	0.66	0.00	0.67	1.10	1.38	0.43	0.59	0.64	0.13
Avail Cap(c_a), veh/h	452	0	374	468	0	433	173	1289	394	630	2671	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	0.0	62.5	61.4	0.0	61.5	67.6	55.8	46.7	39.2	24.9	17.7
Incr Delay (d2), s/veh	0.9	0.0	0.6	1.2	0.0	1.3	98.3	175.9	3.4	1.0	1.2	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	4.2	0.0	2.5	6.4	0.0	6.0	11.9	38.8	6.3	12.7	16.8	2.3
LnGrp Delay(d),s/veh	64.5	0.0	63.1	62.6	0.0	62.9	165.9	231.7	50.1	40.2	26.1	18.1
LnGrp LOS	E		E	E		E	F	F	D	D	C	B
Approach Vol, veh/h		170			310			2140			2175	
Approach Delay, s/veh		64.0			62.7			211.4			28.1	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.2	44.8		20.3	19.0	86.0		24.8
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 15	* 38		40.0
Max Q Clear Time (g_c+I1), s	27.9	40.4		10.5	16.8	37.8		15.2
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	0.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	113.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	20	107	20	20	20	480	1612	20	30	1534	290
Future Volume (veh/h)	70	20	107	20	20	20	480	1612	20	30	1534	290
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		0.94	1.00		0.93	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	56	0	144	21	21	21	500	1679	21	31	1598	302
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	0	296	50	50	50	291	1094	481	627	2476	465
Arrive On Green	0.10	0.00	0.10	0.09	0.09	0.09	0.09	0.31	0.31	0.36	0.58	0.58
Sat Flow, veh/h	1757	0	2941	557	557	557	3408	3505	1543	1757	4244	797
Grp Volume(v), veh/h	56	0	144	63	0	0	500	1679	21	31	1262	638
Grp Sat Flow(s),veh/h/ln	1757	0	1470	1670	0	0	1704	1752	1543	1757	1679	1684
Q Serve(g_s), s	4.4	0.0	6.9	5.4	0.0	0.0	12.8	46.8	1.4	1.7	37.6	38.1
Cycle Q Clear(g_c), s	4.4	0.0	6.9	5.4	0.0	0.0	12.8	46.8	1.4	1.7	37.6	38.1
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	177	0	296	149	0	0	291	1094	481	627	1959	982
V/C Ratio(X)	0.32	0.00	0.49	0.42	0.00	0.00	1.72	1.54	0.04	0.05	0.64	0.65
Avail Cap(c_a), veh/h	445	0	745	445	0	0	291	1094	481	627	1959	982
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	0.0	63.8	64.6	0.0	0.0	68.6	51.6	36.0	31.6	20.9	21.0
Incr Delay (d2), s/veh	1.0	0.0	1.2	1.9	0.0	0.0	337.8	245.6	0.2	0.0	1.6	3.3
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	2.2	0.0	2.9	2.5	0.0	0.0	19.7	59.9	0.6	0.8	17.8	18.6
LnGrp Delay(d),s/veh	63.7	0.0	65.0	66.5	0.0	0.0	406.4	297.2	36.2	31.6	22.5	24.3
LnGrp LOS	E		E	E			F	F	D	C	C	C
Approach Vol, veh/h		200			63			2200			1931	
Approach Delay, s/veh		64.7			66.5			319.5			23.2	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	59.5	52.8		20.1	18.8	93.5		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.8	38.0		40.0
Max Q Clear Time (g_c+I1), s	3.7	48.8		8.9	14.8	40.1		7.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	174.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	50	30	410	30	181	70	1541	290	131	1410	50
Future Volume (veh/h)	70	50	30	410	30	181	70	1541	290	131	1410	50
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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	78	56	33	456	33	201	78	1712	322	146	1567	56
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	91	254	134	502	423	366	114	1905	588	724	2840	101
Arrive On Green	0.03	0.12	0.12	0.15	0.24	0.24	0.03	0.38	0.38	0.21	0.57	0.57
Sat Flow, veh/h	3408	2168	1148	3408	1752	1516	3408	5036	1556	3408	4988	178
Grp Volume(v), veh/h	78	44	45	456	33	201	78	1712	322	146	1055	568
Grp Sat Flow(s),veh/h/ln	1704	1752	1563	1704	1752	1516	1704	1679	1556	1704	1679	1809
Q Serve(g_s), s	3.4	3.4	3.9	19.8	2.2	17.4	3.4	48.0	24.3	5.3	29.6	29.6
Cycle Q Clear(g_c), s	3.4	3.4	3.9	19.8	2.2	17.4	3.4	48.0	24.3	5.3	29.6	29.6
Prop In Lane	1.00		0.73	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	91	205	183	502	423	366	114	1905	588	724	1912	1030
V/C Ratio(X)	0.86	0.21	0.25	0.91	0.08	0.55	0.69	0.90	0.55	0.20	0.55	0.55
Avail Cap(c_a), veh/h	91	456	406	568	432	374	114	1917	592	724	1912	1030
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	72.7	60.0	60.2	62.9	44.0	49.8	71.7	43.9	36.6	48.6	20.3	20.3
Incr Delay (d2), s/veh	49.8	0.2	0.3	16.1	0.0	0.9	20.1	7.2	3.6	0.1	1.2	2.1
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	2.2	1.7	1.7	10.4	1.1	7.4	1.9	23.5	11.1	2.5	13.9	15.3
LnGrp Delay(d),s/veh	122.5	60.2	60.4	79.1	44.0	50.7	91.9	51.2	40.2	48.6	21.4	22.4
LnGrp LOS	F	E	E	E	D	D	F	D	D	D	C	C
Approach Vol, veh/h		167			690			2112			1769	
Approach Delay, s/veh		89.3			69.1			51.0			24.0	
Approach LOS		F			E			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	37.9	62.7	27.1	22.3	9.2	91.4	8.2	41.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	7.3	50.0	21.8	5.9	5.4	31.6	5.4	19.4
Green Ext Time (p_c), s	0.1	6.7	0.4	0.3	0.0	9.6	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1200	251	32	540	20	681	20	111	20	20	20
Future Volume (veh/h)	60	1200	251	32	540	20	681	20	111	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	65	1290	270	34	581	22	859	0	0	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	83	1184	244	70	1388	52	979	514	0	28	28	28
Arrive On Green	0.05	0.41	0.41	0.04	0.40	0.40	0.28	0.00	0.00	0.05	0.05	0.05
Sat Flow, veh/h	1757	2881	594	1757	3438	130	3514	1845	0	551	551	551
Grp Volume(v), veh/h	65	777	783	34	296	307	859	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1722	1757	1752	1815	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.7	41.1	41.1	1.9	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	41.1	41.1	1.9	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.07	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	83	720	708	70	707	733	979	514	0	83	0	0
V/C Ratio(X)	0.78	1.08	1.11	0.48	0.42	0.42	0.88	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	123	720	708	70	707	733	1160	609	0	99	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	1.00	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	47.1	29.4	29.4	47.0	21.4	21.4	34.4	0.0	0.0	47.0	0.0	0.0
Incr Delay (d2), s/veh	9.4	56.9	66.6	21.9	1.8	1.8	6.6	0.0	0.0	25.1	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	31.2	32.6	1.3	6.2	6.4	12.2	0.0	0.0	2.4	0.0	0.0
LnGrp Delay(d),s/veh	56.5	86.4	96.0	68.9	23.2	23.2	41.1	0.0	0.0	72.0	0.0	0.0
LnGrp LOS	E	F	F	E	C	C	D			E		
Approach Vol, veh/h		1625			637			859			66	
Approach Delay, s/veh		89.8			25.6			41.1			72.0	
Approach LOS		F			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	47.1		10.0	10.7	46.4		32.9
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.9	43.1		6.0	5.7	14.1		25.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	63.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	1178	160	50	2278	370	710	440	50	270	170	460
Future Volume (veh/h)	510	1178	160	50	2278	370	710	440	50	270	170	460
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	537	1240	0	53	2398	389	747	463	53	284	179	484
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1398	435	181	1801	556	446	652	74	751	539	469
Arrive On Green	0.03	0.28	0.00	0.10	0.36	0.36	0.13	0.21	0.21	0.22	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1555	3408	3158	360	3408	1752	1523
Grp Volume(v), veh/h	537	1240	0	53	2398	389	747	256	260	284	179	484
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1555	1704	1752	1765	1704	1752	1523
Q Serve(g_s), s	4.0	30.7	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Cycle Q Clear(g_c), s	4.0	30.7	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	54	1398	435	181	1801	556	446	362	365	751	539	469
V/C Ratio(X)	9.93	0.89	0.00	0.29	1.33	0.70	1.68	0.71	0.71	0.38	0.33	1.03
Avail Cap(c_a), veh/h	54	1588	495	181	1801	556	446	607	611	751	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	45.0	0.0	53.9	41.7	9.2	56.5	47.9	48.0	43.1	34.7	45.0
Incr Delay (d2), s/veh	4057.0	8.6	0.0	0.3	153.0	7.2	313.9	1.0	1.0	0.1	0.1	50.3
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	62.9	15.4	0.0	1.8	47.0	7.1	27.4	8.6	8.8	4.4	5.0	23.3
LnGrp Delay(d),s/veh	4120.0	53.7	0.0	54.2	194.7	16.4	370.4	48.9	49.0	43.2	34.8	95.3
LnGrp LOS	F	D		D	F	B	F	D	D	D	C	F
Approach Vol, veh/h		1777			2840			1263			947	
Approach Delay, s/veh		1282.5			167.7			239.1			68.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	42.1	22.0	46.5	9.0	52.5	35.1	33.4
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	9.5	* 41	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	5.6	32.7	19.0	42.0	6.0	48.5	11.2	19.8
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	457.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	540	313	340	510	240	192	510	160	30	330	90
Future Volume (veh/h)	90	540	313	340	510	240	192	510	160	30	330	90
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		0.97	1.00		0.98	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	112	675	391	425	638	300	240	638	200	38	412	112
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	139	719	416	287	974	458	186	730	228	87	680	183
Arrive On Green	0.08	0.34	0.34	0.16	0.42	0.42	0.05	0.28	0.28	0.03	0.25	0.25
Sat Flow, veh/h	1757	2116	1225	1757	2296	1079	3408	2607	816	3408	2711	728
Grp Volume(v), veh/h	112	559	507	425	487	451	240	429	409	38	265	259
Grp Sat Flow(s),veh/h/ln	1757	1752	1588	1757	1752	1623	1704	1752	1671	1704	1752	1687
Q Serve(g_s), s	6.6	32.3	32.4	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Cycle Q Clear(g_c), s	6.6	32.3	32.4	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Prop In Lane	1.00		0.77	1.00		0.67	1.00		0.49	1.00		0.43
Lane Grp Cap(c), veh/h	139	595	539	287	744	689	186	491	468	87	440	423
V/C Ratio(X)	0.81	0.94	0.94	1.48	0.65	0.66	1.29	0.87	0.88	0.44	0.60	0.61
Avail Cap(c_a), veh/h	160	604	547	287	744	689	186	552	526	130	523	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	33.5	33.5	43.7	24.0	24.0	49.4	35.9	35.9	50.2	34.5	34.7
Incr Delay (d2), s/veh	23.0	22.6	24.4	233.3	2.1	2.2	165.2	13.4	14.1	3.4	1.4	1.6
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	4.1	19.3	17.9	26.8	11.5	10.7	6.9	13.6	13.1	0.6	6.9	6.8
LnGrp Delay(d),s/veh	70.3	56.1	57.9	277.0	26.1	26.2	214.6	49.3	50.0	53.6	35.9	36.2
LnGrp LOS	E	E	E	F	C	C	F	D	D	D	D	D
Approach Vol, veh/h		1178			1363			1078			562	
Approach Delay, s/veh		58.2			104.4			86.3			37.3	
Approach LOS		E			F			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	7.2	35.3	21.6	40.5	10.2	32.2	12.7	49.3
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	3.1	26.4	19.1	34.4	7.7	16.2	8.6	25.2
Green Ext Time (p_c), s	0.0	2.6	0.0	1.0	0.0	2.4	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	800	900	225	300	470	190	1758	155	310	1138	50
Future Volume (veh/h)	300	800	900	225	300	470	190	1758	155	310	1138	50
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	323	860	968	242	323	505	204	1890	167	333	1224	54
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	1038	2446	215	252	1387	427
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.30	0.52	0.52	0.07	0.28	0.28
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4705	413	3408	5036	1551
Grp Volume(v), veh/h	323	860	968	242	323	505	204	1346	711	333	1224	54
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1761	1704	1679	1551
Q Serve(g_s), s	15.4	27.3	46.0	13.8	8.6	41.9	5.8	41.7	42.3	9.6	30.2	3.5
Cycle Q Clear(g_c), s	15.4	27.3	46.0	13.8	8.6	41.9	5.8	41.7	42.3	9.6	30.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	1038	1746	916	252	1387	427
V/C Ratio(X)	1.55	0.69	1.76	1.30	0.27	0.95	0.20	0.77	0.78	1.32	0.88	0.13
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	1038	1746	916	252	1519	468
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	0.47	0.47	0.47	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	36.0	42.0	58.1	30.5	41.3	33.4	25.0	25.1	60.2	45.1	36.6
Incr Delay (d2), s/veh	270.7	1.4	349.3	167.6	0.0	27.1	0.0	1.6	3.1	170.4	8.4	0.6
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	23.1	13.4	73.1	15.4	4.2	21.6	2.7	19.6	21.3	10.5	15.1	1.6
LnGrp Delay(d),s/veh	328.0	37.4	391.3	225.7	30.5	68.5	33.5	26.6	28.3	230.6	53.5	37.2
LnGrp LOS	F	D	F	F	C	E	C	C	C	F	D	D
Approach Vol, veh/h		2151			1070			2261			1611	
Approach Delay, s/veh		240.3			92.6			27.8			89.5	
Approach LOS		F			F			C			F	

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	13.8	74.4	18.8	51.0	46.4	41.8	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.6	41.2	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.6	44.3	15.8	48.0	7.8	32.2	17.4	43.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	3.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	116.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1012	290	0	892	1229	0	0	0	679	0	200
Future Volume (veh/h)	0	1012	290	0	892	1229	0	0	0	679	0	200
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	1065	305	0	939	0				715	0	211
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1460	418	0	1315	588				911	0	419
Arrive On Green	0.00	0.38	0.38	0.00	0.38	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	4057	1114	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	919	451	0	939	0				715	0	211
Grp Sat Flow(s),veh/h/ln	0	1679	1648	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	6.9	6.9	0.0	6.7	0.0				5.7	0.0	3.3
Cycle Q Clear(g_c), s	0.0	6.9	6.9	0.0	6.7	0.0				5.7	0.0	3.3
Prop In Lane	0.00		0.68	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1259	618	0	1315	588				911	0	419
V/C Ratio(X)	0.00	0.73	0.73	0.00	0.71	0.00				0.78	0.00	0.50
Avail Cap(c_a), veh/h	0	3430	1684	0	3581	1602				1683	0	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.9	7.9	0.0	7.8	0.0				10.0	0.0	9.1
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	0.3	0.0				0.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	0.0	3.2	0.0				2.8	0.0	1.4
LnGrp Delay(d),s/veh	0.0	8.2	8.5	0.0	8.1	0.0				10.5	0.0	9.5
LnGrp LOS		A	A		A					B		A
Approach Vol, veh/h		1370			939						926	
Approach Delay, s/veh		8.3			8.1						10.3	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.4		12.9		16.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		8.9		7.7		8.7		
Green Ext Time (p_c), s		2.1		0.1		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1441	0	0	2021	1119	100	0	619	0	0	0
Future Volume (veh/h)	250	1441	0	0	2021	1119	100	0	619	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1470	0	0	2062	1142	102	0	632			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	275	3676	0	0	2729	1442	351	0	531			
Arrive On Green	0.16	0.73	0.00	0.00	0.36	0.36	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2661	1757	0	2656			
Grp Volume(v), veh/h	255	1470	0	0	2062	1142	102	0	632			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1330	1757	0	1328			
Q Serve(g_s), s	21.5	16.7	0.0	0.0	53.9	57.6	7.4	0.0	30.0			
Cycle Q Clear(g_c), s	21.5	16.7	0.0	0.0	53.9	57.6	7.4	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	275	3676	0	0	2729	1442	351	0	531			
V/C Ratio(X)	0.93	0.40	0.00	0.00	0.76	0.79	0.29	0.00	1.19			
Avail Cap(c_a), veh/h	351	3676	0	0	2729	1442	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	0.52	0.52	1.00	0.00	1.00			
Uniform Delay (d), s/veh	62.4	7.7	0.0	0.0	39.1	40.2	51.0	0.0	60.0			
Incr Delay (d2), s/veh	19.3	0.2	0.0	0.0	1.0	2.4	0.2	0.0	103.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.9	7.7	0.0	0.0	25.3	21.7	3.6	0.0	18.6			
LnGrp Delay(d),s/veh	81.6	8.0	0.0	0.0	40.1	42.6	51.1	0.0	163.0			
LnGrp LOS	F	A			D	D	D		F			
Approach Vol, veh/h		1725			3204			734				
Approach Delay, s/veh		18.9			41.0			147.5				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			28.2	86.7		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		18.7			23.5	59.6		32.0
Green Ext Time (p_c), s		2.7			0.0	4.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1420	200	271	2390	351	250	140	221	291	150	310
Future Volume (veh/h)	300	1420	200	271	2390	351	250	140	221	291	150	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	312	1479	208	282	2490	366	260	146	230	303	156	323
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	355	1626	228	590	2835	877	304	349	300	394	404	349
Arrive On Green	0.07	0.24	0.24	0.35	0.89	0.89	0.09	0.20	0.20	0.12	0.23	0.23
Sat Flow, veh/h	3408	4447	625	3408	6346	1557	3408	1752	1509	3408	1752	1514
Grp Volume(v), veh/h	312	1116	571	282	2490	366	260	146	230	303	156	323
Grp Sat Flow(s),veh/h/ln	1704	1679	1715	1704	1586	1557	1704	1752	1509	1704	1752	1514
Q Serve(g_s), s	13.6	48.4	48.5	9.7	29.2	1.7	11.3	10.9	21.6	12.9	11.3	31.3
Cycle Q Clear(g_c), s	13.6	48.4	48.5	9.7	29.2	1.7	11.3	10.9	21.6	12.9	11.3	31.3
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	1228	627	590	2835	877	304	349	300	394	404	349
V/C Ratio(X)	0.88	0.91	0.91	0.48	0.88	0.42	0.85	0.42	0.77	0.77	0.39	0.93
Avail Cap(c_a), veh/h	359	1298	663	590	2835	877	348	456	392	394	473	409
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.15	0.15	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	54.2	54.2	43.7	6.0	1.1	67.3	52.5	56.8	64.4	48.7	56.4
Incr Delay (d2), s/veh	16.9	9.4	16.5	0.0	0.7	0.2	15.1	0.3	4.5	8.2	0.2	23.2
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	7.2	24.1	25.9	4.5	11.5	0.7	5.9	5.3	9.4	6.5	5.5	15.3
LnGrp Delay(d),s/veh	85.7	63.6	70.7	43.7	6.7	1.3	82.5	52.8	61.3	72.6	49.0	79.6
LnGrp LOS	F	E	E	D	A	A	F	D	E	E	D	E
Approach Vol, veh/h		1999			3138			636			782	
Approach Delay, s/veh		69.1			9.4			68.0			70.8	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	60.8	17.6	39.6	19.8	73.0	22.3	34.9
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	16.8	* 58	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	11.7	50.5	13.3	33.3	15.6	31.2	14.9	23.6
Green Ext Time (p_c), s	0.3	4.3	0.1	1.3	0.0	18.9	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	1572	180	350	2492	181	400	70	290	261	90	260
Future Volume (veh/h)	230	1572	180	350	2492	181	400	70	290	261	90	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	240	1638	188	365	2596	189	417	245	188	272	94	271
Adj No. of Lanes	2	3	1	1	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	538	2014	793	349	2159	821	382	314	256	335	295	240
Arrive On Green	0.21	0.53	0.53	0.40	0.86	0.86	0.11	0.17	0.17	0.10	0.16	0.16
Sat Flow, veh/h	3408	5036	1556	1757	5036	1557	3514	1845	1502	3408	1845	1499
Grp Volume(v), veh/h	240	1638	188	365	2596	189	417	245	188	272	94	271
Grp Sat Flow(s),veh/h/ln	1704	1679	1556	1757	1679	1557	1757	1845	1502	1704	1845	1499
Q Serve(g_s), s	9.2	40.2	8.3	29.8	64.3	0.0	16.3	19.1	12.3	11.7	6.8	17.4
Cycle Q Clear(g_c), s	9.2	40.2	8.3	29.8	64.3	0.0	16.3	19.1	12.3	11.7	6.8	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	2014	793	349	2159	821	382	314	256	335	295	240
V/C Ratio(X)	0.45	0.81	0.24	1.05	1.20	0.23	1.09	0.78	0.73	0.81	0.32	1.13
Avail Cap(c_a), veh/h	538	2014	793	349	2159	821	382	508	414	341	492	400
HCM Platoon Ratio	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	30.5	15.7	45.2	10.7	4.3	66.8	59.5	28.0	66.3	55.8	33.1
Incr Delay (d2), s/veh	0.1	2.0	0.4	28.3	91.6	0.1	73.1	1.6	1.5	12.7	0.2	78.1
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	4.3	18.9	3.6	17.1	45.5	1.0	11.8	9.9	5.2	6.1	3.5	12.4
LnGrp Delay(d),s/veh	53.6	32.5	16.1	73.5	102.3	4.4	140.0	61.1	29.5	79.0	56.0	111.2
LnGrp LOS	D	C	B	F	F	A	F	E	C	E	E	F
Approach Vol, veh/h		2066			3150			850			637	
Approach Delay, s/veh		33.5			93.1			92.8			89.3	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	66.0	21.0	29.0	29.7	70.3	19.7	30.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 30	44.0	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	31.8	42.2	18.3	19.4	11.2	66.3	13.7	21.1
Green Ext Time (p_c), s	0.0	1.3	0.0	0.8	0.0	0.0	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	74.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2233	150	131	2873	90	180	50	101	220	60	240
Future Volume (veh/h)	90	2233	150	131	2873	90	180	50	101	220	60	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	96	2376	160	139	3056	96	191	53	107	234	64	255
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2343	856	189	2771	86	150	82	166	211	361	295
Arrive On Green	0.02	0.31	0.31	0.22	1.00	1.00	0.09	0.16	0.16	0.12	0.20	0.20
Sat Flow, veh/h	1757	5036	1551	1757	5012	155	1757	529	1068	1757	1845	1508
Grp Volume(v), veh/h	96	2376	160	139	2034	1118	191	0	160	234	64	255
Grp Sat Flow(s),veh/h/ln	1757	1679	1551	1757	1679	1810	1757	0	1597	1757	1845	1508
Q Serve(g_s), s	4.0	69.8	5.0	11.1	0.0	82.9	12.8	0.0	14.1	18.0	4.3	24.5
Cycle Q Clear(g_c), s	4.0	69.8	5.0	11.1	0.0	82.9	12.8	0.0	14.1	18.0	4.3	24.5
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	47	2343	856	189	1856	1001	150	0	249	211	361	295
V/C Ratio(X)	2.05	1.01	0.19	0.74	1.10	1.12	1.27	0.00	0.64	1.11	0.18	0.86
Avail Cap(c_a), veh/h	47	2343	856	189	1856	1001	150	0	362	211	480	392
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	51.6	8.4	56.9	0.0	0.0	68.6	0.0	59.4	66.0	50.3	58.4
Incr Delay (d2), s/veh	500.3	15.3	0.2	1.2	44.1	54.0	165.0	0.0	1.0	94.6	0.1	11.6
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	8.5	35.7	2.2	5.4	11.4	15.0	13.1	0.0	6.3	14.3	2.2	11.2
LnGrp Delay(d),s/veh	573.9	67.0	8.6	58.1	44.1	54.0	233.6	0.0	60.4	160.6	50.3	70.0
LnGrp LOS	F	F	A	E	F	F	F		E	F	D	E
Approach Vol, veh/h		2632			3291			351			553	
Approach Delay, s/veh		81.9			48.1			154.7			106.0	
Approach LOS		F			D			F			F	

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	22.1	75.8	17.0	35.1	9.0	88.9	23.0	29.1
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	8.3	* 70	* 13	39.0	4.0	73.3	18.0	* 34
Max Q Clear Time (g_c+I1), s	13.1	71.8	14.8	26.5	6.0	84.9	20.0	16.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	71.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	1524	330	313	1914	112	220	290	183	53	500	630
Future Volume (veh/h)	200	1524	330	313	1914	112	220	290	183	53	500	630
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	225	1712	371	352	2151	126	247	326	206	60	562	708
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	389	1984	618	404	1937	598	223	1077	477	76	504	603
Arrive On Green	0.23	0.79	0.79	0.12	0.38	0.38	0.07	0.31	0.31	0.04	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	225	1712	371	352	2151	126	247	326	206	60	562	708
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	8.8	33.8	10.8	15.2	57.7	6.6	9.8	10.7	15.9	5.1	41.0	41.0
Cycle Q Clear(g_c), s	8.8	33.8	10.8	15.2	57.7	6.6	9.8	10.7	15.9	5.1	41.0	41.0
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	389	1984	618	404	1937	598	223	1077	477	76	504	603
V/C Ratio(X)	0.58	0.86	0.60	0.87	1.11	0.21	1.11	0.30	0.43	0.79	1.11	1.17
Avail Cap(c_a), veh/h	466	1984	618	920	1937	598	223	1077	477	85	504	603
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	13.2	6.4	65.0	46.2	20.6	70.1	39.7	41.5	71.1	54.5	45.9
Incr Delay (d2), s/veh	0.2	2.1	1.7	2.3	57.7	0.8	92.7	0.1	0.2	30.3	75.3	95.3
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	4.1	15.3	4.6	7.3	37.1	3.0	7.5	5.2	6.8	3.1	31.4	33.4
LnGrp Delay(d),s/veh	54.9	15.3	8.1	67.3	103.9	21.4	162.8	39.7	41.7	101.3	129.8	141.2
LnGrp LOS	D	B	A	E	F	C	F	D	D	F	F	F
Approach Vol, veh/h		2308			2629			779			1330	
Approach Delay, s/veh		18.0			95.0			79.3			134.6	
Approach LOS		B			F			E			F	

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	22.0	65.4	15.6	47.0	23.4	64.0	10.7	51.9
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 21	* 58	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	17.2	35.8	11.8	43.0	10.8	59.7	7.1	17.9
Green Ext Time (p_c), s	0.6	1.7	0.0	0.0	0.3	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	75.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	1836	290	60	1615	60	420	50	200	430	150	244
Future Volume (veh/h)	74	1836	290	60	1615	60	420	50	200	430	150	244
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	80	1996	315	65	1755	65	457	54	217	467	163	265
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	1780	275	61	1830	68	503	64	259	377	514	424
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.15	0.21	0.21	0.21	0.28	0.28
Sat Flow, veh/h	1757	4374	675	1757	4976	184	3408	312	1255	1757	1845	1520
Grp Volume(v), veh/h	80	1522	789	65	1184	636	457	0	271	467	163	265
Grp Sat Flow(s),veh/h/ln	1757	1679	1692	1757	1679	1802	1704	0	1567	1757	1845	1520
Q Serve(g_s), s	6.7	61.1	61.1	5.2	51.6	51.8	19.8	0.0	24.9	32.2	10.5	18.6
Cycle Q Clear(g_c), s	6.7	61.1	61.1	5.2	51.6	51.8	19.8	0.0	24.9	32.2	10.5	18.6
Prop In Lane	1.00		0.40	1.00		0.10	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	104	1367	689	61	1234	663	503	0	323	377	514	424
V/C Ratio(X)	0.77	1.11	1.15	1.07	0.96	0.96	0.91	0.00	0.84	1.24	0.32	0.63
Avail Cap(c_a), veh/h	104	1367	689	61	1247	669	563	0	387	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	44.5	44.5	72.4	46.3	46.3	62.9	0.0	57.1	58.9	42.8	31.2
Incr Delay (d2), s/veh	25.9	61.8	82.1	135.2	17.5	26.4	16.5	0.0	11.3	128.0	0.1	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	40.0	44.2	4.8	27.0	30.7	10.5	0.0	11.8	29.0	5.4	8.0
LnGrp Delay(d),s/veh	95.5	106.2	126.6	209.5	63.8	72.8	79.5	0.0	68.4	186.9	42.9	32.9
LnGrp LOS	F	F	F	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2391			1885			728			895	
Approach Delay, s/veh		112.6			71.9			75.4			115.1	
Approach LOS		F			E			E			F	

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	9.4	67.5	26.3	46.8	15.3	61.6	37.2	35.9
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	7.2	63.1	21.8	20.6	8.7	53.8	34.2	26.9
Green Ext Time (p_c), s	0.0	0.0	0.3	1.0	0.0	1.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	95.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	2010	80	130	1510	147	170	40	330	177	40	95
Future Volume (veh/h)	76	2010	80	130	1510	147	170	40	330	177	40	95
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	84	2233	89	144	1678	163	189	44	367	197	44	106
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	2425	96	195	2575	250	349	530	437	215	40	95
Arrive On Green	0.06	0.49	0.49	0.11	0.55	0.55	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1757	4962	197	1757	4659	451	1220	1845	1521	618	138	332
Grp Volume(v), veh/h	84	1507	815	144	1208	633	189	44	367	347	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1801	1757	1679	1753	1220	1845	1521	1088	0	0
Q Serve(g_s), s	7.1	62.4	63.4	11.9	37.7	37.9	0.0	2.6	34.0	40.5	0.0	0.0
Cycle Q Clear(g_c), s	7.1	62.4	63.4	11.9	37.7	37.9	23.5	2.6	34.0	43.1	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.26	1.00		1.00	0.57		0.31
Lane Grp Cap(c), veh/h	104	1641	880	195	1855	969	349	530	437	350	0	0
V/C Ratio(X)	0.81	0.92	0.93	0.74	0.65	0.65	0.54	0.08	0.84	0.99	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	936	195	1855	969	349	530	437	350	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.7	35.6	35.8	64.5	23.4	23.5	46.5	39.0	50.2	56.8	0.0	0.0
Incr Delay (d2), s/veh	5.4	9.7	16.9	12.1	1.8	3.4	1.0	0.0	12.9	45.4	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	3.6	31.1	35.6	6.5	17.9	19.2	6.9	1.3	15.8	18.8	0.0	0.0
LnGrp Delay(d),s/veh	75.1	45.3	52.7	76.7	25.2	26.9	47.4	39.0	63.1	102.2	0.0	0.0
LnGrp LOS	E	D	D	E	C	C	D	D	E	F		
Approach Vol, veh/h		2406			1985			600			347	
Approach Delay, s/veh		48.9			29.5			56.4			102.2	
Approach LOS		D			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.7	79.3		48.0	13.1	88.9		48.0
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	13.9	65.4		36.0	9.1	39.9		45.1
Green Ext Time (p_c), s	0.0	7.9		0.9	0.1	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	1801	263	580	1171	590	403	1130	660	760	1060	273
Future Volume (veh/h)	443	1801	263	580	1171	590	403	1130	660	760	1060	273
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	471	1916	280	617	1246	628	429	1202	702	809	1128	290
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	517	1343	413	386	1149	621	409	1386	1072	630	1712	766
Arrive On Green	0.15	0.27	0.27	0.04	0.08	0.08	0.12	0.28	0.28	0.18	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2723	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	471	1916	280	617	1246	628	429	1202	702	809	1128	290
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	20.4	40.0	17.6	17.0	34.2	22.5	18.0	34.1	14.3	27.7	28.6	17.5
Cycle Q Clear(g_c), s	20.4	40.0	17.6	17.0	34.2	22.5	18.0	34.1	14.3	27.7	28.6	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	517	1343	413	386	1149	621	409	1386	1072	630	1712	766
V/C Ratio(X)	0.91	1.43	0.68	1.60	1.08	1.01	1.05	0.87	0.65	1.28	0.66	0.38
Avail Cap(c_a), veh/h	591	1343	413	386	1149	621	409	1578	1177	630	1712	766
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.26	0.26	0.26	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	62.6	55.0	26.0	72.2	69.4	29.9	66.0	51.8	37.6	61.1	42.1	23.8
Incr Delay (d2), s/veh	15.9	196.4	3.6	272.0	42.6	21.1	57.9	7.5	3.1	129.1	0.2	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	10.8	43.0	8.0	22.6	20.5	10.3	11.8	16.8	5.8	24.3	13.3	7.5
LnGrp Delay(d),s/veh	78.5	251.4	29.7	344.2	111.9	51.0	123.9	59.3	40.7	190.2	42.3	23.9
LnGrp LOS	E	F	C	F	F	F	F	E	D	F	D	C
Approach Vol, veh/h		2667			2491			2333			2227	
Approach Delay, s/veh		197.6			154.1			65.6			93.6	
Approach LOS		F			F			E			F	

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	23.0	46.0	24.0	57.0	28.8	40.2	33.7	47.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	20.0	30.6	22.4	36.2	29.7	36.1
Green Ext Time (p_c), s	0.0	0.0	0.0	6.4	0.4	0.0	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	130.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2830	321	130	1820	70	261	50	300	130	70	370
Future Volume (veh/h)	140	2830	321	130	1820	70	261	50	300	130	70	370
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	146	2948	334	135	1896	73	272	52	312	135	73	385
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	2595	881	744	4250	163	115	453	372	141	480	395
Arrive On Green	0.06	0.35	0.35	0.85	1.00	1.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1757	5036	1511	1757	4976	191	1757	1845	1516	1757	1845	1518
Grp Volume(v), veh/h	146	2948	334	135	1278	691	272	52	312	135	73	385
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1810	1757	1845	1516	1757	1845	1518
Q Serve(g_s), s	12.3	77.3	31.2	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Cycle Q Clear(g_c), s	12.3	77.3	31.2	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	2595	881	744	2868	1546	115	453	372	141	480	395
V/C Ratio(X)	0.86	1.14	0.38	0.18	0.45	0.45	2.37	0.11	0.84	0.96	0.15	0.98
Avail Cap(c_a), veh/h	704	2595	881	744	2868	1546	115	453	372	141	480	395
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	49.1	65.7	6.8	0.0	0.0	70.1	44.0	41.5	68.8	42.8	55.0
Incr Delay (d2), s/veh	0.5	61.7	0.1	0.0	0.2	0.4	642.4	0.0	14.7	63.3	0.1	38.5
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	6.0	50.7	13.1	1.0	0.1	0.2	25.2	1.7	12.3	8.1	2.3	20.0
LnGrp Delay(d),s/veh	69.6	110.8	65.8	6.8	0.2	0.4	712.5	44.0	56.3	132.1	42.8	93.5
LnGrp LOS	E	F	E	A	A	A	F	D	E	F	D	F
Approach Vol, veh/h		3428			2104			636			593	
Approach Delay, s/veh		104.7			0.7			335.9			96.1	
Approach LOS		F			A			F			F	

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	70.6	83.3	14.0	43.7	18.7	135.2	16.2	41.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	4.1	79.3	11.8	39.7	14.3	2.0	13.5	27.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	8.4	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	93.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	2628	251	530	1668	100	201	210	410	310	170	91
Future Volume (veh/h)	131	2628	251	530	1668	100	201	210	410	310	170	91
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	135	2709	259	546	1720	103	207	216	423	320	175	94
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	441	1903	588	609	2015	120	232	397	343	279	550	281
Arrive On Green	0.17	0.50	0.50	0.06	0.14	0.14	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1556	3408	4852	290	3408	1752	1514	3408	2236	1143
Grp Volume(v), veh/h	135	2709	259	546	1189	634	207	216	423	320	135	134
Grp Sat Flow(s),veh/h/ln	1704	1679	1556	1704	1679	1785	1704	1752	1514	1704	1752	1626
Q Serve(g_s), s	5.2	56.7	16.0	23.9	51.9	52.0	9.0	16.3	34.0	12.3	9.5	10.1
Cycle Q Clear(g_c), s	5.2	56.7	16.0	23.9	51.9	52.0	9.0	16.3	34.0	12.3	9.5	10.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	441	1903	588	609	1394	741	232	397	343	279	431	400
V/C Ratio(X)	0.31	1.42	0.44	0.90	0.85	0.85	0.89	0.54	1.23	1.15	0.31	0.33
Avail Cap(c_a), veh/h	441	1903	588	1370	1775	944	232	397	343	279	431	400
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	0.40	0.40	0.40	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	37.3	27.2	69.2	60.3	60.3	69.4	51.2	58.0	68.8	46.2	46.5
Incr Delay (d2), s/veh	0.0	191.1	0.3	0.8	2.9	5.3	31.5	0.9	127.6	98.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	59.9	6.9	11.4	24.8	26.9	5.3	8.0	26.4	9.6	4.6	4.6
LnGrp Delay(d),s/veh	56.2	228.4	27.5	70.0	63.1	65.6	100.9	52.0	185.6	167.7	46.4	46.6
LnGrp LOS	E	F	C	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		3103			2369			846			589	
Approach Delay, s/veh		204.1			65.4			130.7			112.3	
Approach LOS		F			E			F			F	

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	31.0	62.7	14.4	41.9	25.4	68.3	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	25.9	58.7	11.0	12.1	7.2	54.0	14.3	36.0
Green Ext Time (p_c), s	0.9	0.0	0.0	0.9	0.0	8.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	139.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1183	2162	553	270	1052	90	263	790	290	210	1150	823
Future Volume (veh/h)	1183	2162	553	270	1052	90	263	790	290	210	1150	823
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1259	2300	588	287	1119	96	280	840	309	223	1223	876
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	3165	981	291	1910	590	186	1599	524	209	872	1568
Arrive On Green	0.32	0.63	0.63	0.09	0.38	0.38	0.05	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	3408	5036	1560	3408	5036	1556	3408	6346	1549	3408	3505	2726
Grp Volume(v), veh/h	1259	2300	588	287	1119	96	280	840	309	223	1223	876
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1556	1704	1586	1549	1704	1752	1363
Q Serve(g_s), s	48.4	46.8	36.3	12.6	26.6	6.5	8.2	17.1	24.8	9.2	37.3	0.0
Cycle Q Clear(g_c), s	48.4	46.8	36.3	12.6	26.6	6.5	8.2	17.1	24.8	9.2	37.3	0.0
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	1100	3165	981	291	1910	590	186	1599	524	209	872	1568
V/C Ratio(X)	1.14	0.73	0.60	0.99	0.59	0.16	1.50	0.53	0.59	1.07	1.40	0.56
Avail Cap(c_a), veh/h	1100	3165	981	291	1910	590	186	1599	524	209	872	1568
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	19.0	19.3	68.5	37.2	34.3	70.9	48.4	41.1	70.4	56.3	20.2
Incr Delay (d2), s/veh	66.3	0.1	0.2	48.9	0.3	0.0	252.2	0.2	1.2	81.1	188.4	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	32.9	21.5	15.6	7.9	12.4	2.8	10.4	7.5	10.8	6.7	40.8	11.4
LnGrp Delay(d),s/veh	117.1	19.2	19.5	117.4	37.5	34.3	323.1	48.5	42.3	151.5	244.7	20.5
LnGrp LOS	F	B	B	F	D	C	F	D	D	F	F	C
Approach Vol, veh/h		4147			1502			1429			2322	
Approach Delay, s/veh		49.0			52.5			101.0			151.2	
Approach LOS		D			D			F			F	

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	17.0	100.3	14.2	43.0	54.4	62.9	13.4	43.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 13	71.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.6	48.8	10.2	39.3	50.4	28.6	11.2	26.8
Green Ext Time (p_c), s	0.0	13.8	0.0	0.0	0.0	3.0	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	82.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	140	320	50	191	80	1442	210	281	1822	60
Future Volume (veh/h)	190	30	140	320	50	191	80	1442	210	281	1822	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	196	31	144	330	52	197	82	1487	216	290	1878	62
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	40	246	378	71	268	70	1195	364	425	2287	707
Arrive On Green	0.16	0.16	0.16	0.22	0.22	0.22	0.04	0.24	0.24	0.24	0.45	0.45
Sat Flow, veh/h	1527	241	1500	1757	328	1243	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	227	0	144	330	0	249	82	1487	216	290	1878	62
Grp Sat Flow(s),veh/h/ln	1768	0	1500	1757	0	1571	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	18.5	0.0	13.3	27.2	0.0	22.2	6.0	35.6	18.7	22.5	48.7	3.4
Cycle Q Clear(g_c), s	18.5	0.0	13.3	27.2	0.0	22.2	6.0	35.6	18.7	22.5	48.7	3.4
Prop In Lane	0.86		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	0	246	378	0	338	70	1195	364	425	2287	707
V/C Ratio(X)	0.78	0.00	0.59	0.87	0.00	0.74	1.17	1.24	0.59	0.68	0.82	0.09
Avail Cap(c_a), veh/h	448	0	380	468	0	419	70	1195	364	425	2287	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	0.0	58.0	56.9	0.0	54.9	72.0	57.2	50.8	51.6	35.6	23.3
Incr Delay (d2), s/veh	2.0	0.0	0.8	12.2	0.0	3.7	159.4	117.1	6.9	3.7	3.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	5.6	14.5	0.0	10.0	6.0	29.4	8.6	11.3	23.3	1.5
LnGrp Delay(d),s/veh	62.2	0.0	58.8	69.1	0.0	58.5	231.5	174.3	57.7	55.3	39.1	23.5
LnGrp LOS	E		E	E		E	F	F	E	E	D	C
Approach Vol, veh/h		371			579			1785			2230	
Approach Delay, s/veh		60.9			64.5			162.8			40.8	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.7	42.0		28.8	10.2	74.5		36.5
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 17	* 36		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	24.5	37.6		20.5	8.0	50.7		29.2
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	0.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	88.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	20	520	20	20	20	200	1482	20	40	1912	110
Future Volume (veh/h)	310	20	520	20	20	20	200	1482	20	40	1912	110
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		0.97	1.00		0.93	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	220	0	657	21	21	21	206	1528	21	41	1971	113
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	418	0	722	50	50	50	120	1768	783	47	2413	138
Arrive On Green	0.24	0.00	0.24	0.09	0.09	0.09	0.04	0.50	0.50	0.03	0.50	0.50
Sat Flow, veh/h	1757	0	3031	557	557	557	3408	3505	1552	1757	4867	278
Grp Volume(v), veh/h	220	0	657	63	0	0	206	1528	21	41	1357	727
Grp Sat Flow(s),veh/h/ln	1757	0	1515	1670	0	0	1704	1752	1552	1757	1679	1788
Q Serve(g_s), s	16.4	0.0	31.6	5.4	0.0	0.0	5.3	57.5	1.0	3.5	51.3	51.8
Cycle Q Clear(g_c), s	16.4	0.0	31.6	5.4	0.0	0.0	5.3	57.5	1.0	3.5	51.3	51.8
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	418	0	722	149	0	0	120	1768	783	47	1664	886
V/C Ratio(X)	0.53	0.00	0.91	0.42	0.00	0.00	1.71	0.86	0.03	0.88	0.82	0.82
Avail Cap(c_a), veh/h	445	0	768	445	0	0	120	1768	783	47	1664	886
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	0.0	55.6	64.6	0.0	0.0	72.3	32.7	18.7	72.8	32.0	32.1
Incr Delay (d2), s/veh	1.0	0.0	14.4	1.9	0.0	0.0	352.4	5.9	0.1	85.7	4.5	8.4
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	8.1	0.0	14.7	2.5	0.0	0.0	8.4	29.3	0.5	2.8	24.8	27.5
LnGrp Delay(d),s/veh	50.8	0.0	70.0	66.5	0.0	0.0	424.8	38.6	18.7	158.5	36.5	40.5
LnGrp LOS	D		E	E			F	D	B	F	D	D
Approach Vol, veh/h		877			63			1755			2125	
Approach Delay, s/veh		65.1			66.5			83.7			40.3	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	81.7		40.7	11.3	80.4		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.3	45.5		40.0
Max Q Clear Time (g_c+I1), s	5.5	59.5		33.6	7.3	53.8		7.4
Green Ext Time (p_c), s	0.0	0.0		1.6	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	60.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	30	30	320	70	141	50	1501	540	251	2201	50
Future Volume (veh/h)	30	30	30	320	70	141	50	1501	540	251	2201	50
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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	32	32	32	344	75	152	54	1614	581	270	2367	54
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	67	205	171	388	375	323	584	2745	850	314	2299	52
Arrive On Green	0.02	0.12	0.12	0.11	0.21	0.21	0.17	0.55	0.55	0.09	0.45	0.45
Sat Flow, veh/h	3408	1768	1468	3408	1752	1512	3408	5036	1559	3408	5063	115
Grp Volume(v), veh/h	32	32	32	344	75	152	54	1614	581	270	1567	854
Grp Sat Flow(s),veh/h/ln	1704	1752	1484	1704	1752	1512	1704	1679	1559	1704	1679	1821
Q Serve(g_s), s	1.4	2.4	3.0	14.9	5.3	13.2	2.0	32.2	23.8	11.7	68.1	68.1
Cycle Q Clear(g_c), s	1.4	2.4	3.0	14.9	5.3	13.2	2.0	32.2	23.8	11.7	68.1	68.1
Prop In Lane	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	67	204	172	388	375	323	584	2745	850	314	1524	827
V/C Ratio(X)	0.48	0.16	0.19	0.89	0.20	0.47	0.09	0.59	0.68	0.86	1.03	1.03
Avail Cap(c_a), veh/h	91	456	386	427	625	539	584	2745	850	357	1524	827
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	72.8	59.7	59.9	65.5	48.4	51.6	52.3	22.8	8.6	67.1	41.0	41.0
Incr Delay (d2), s/veh	2.0	0.1	0.2	17.4	0.1	0.4	0.1	0.9	4.4	15.5	30.4	40.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	1.2	8.0	2.6	5.6	1.0	15.2	11.2	6.2	38.0	43.5
LnGrp Delay(d),s/veh	74.7	59.8	60.1	82.9	48.5	51.9	52.5	23.8	13.0	82.6	71.4	81.2
LnGrp LOS	E	E	E	F	D	D	D	C	B	F	F	F
Approach Vol, veh/h		96			571			2249			2691	
Approach Delay, s/veh		64.9			70.1			21.7			75.6	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	87.8	22.1	22.1	31.7	74.1	7.1	37.1
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	13.7	34.2	16.9	5.0	4.0	70.1	3.4	15.2
Green Ext Time (p_c), s	0.1	21.0	0.2	0.2	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	250	621	81	1010	20	191	20	30	20	20	20
Future Volume (veh/h)	20	250	621	81	1010	20	191	20	30	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.95	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	22	278	690	90	1122	22	134	132	33	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	420	910	796	114	1211	24	256	205	51	28	28	28
Arrive On Green	0.24	0.52	0.52	0.06	0.34	0.34	0.15	0.15	0.15	0.05	0.05	0.05
Sat Flow, veh/h	1757	1752	1534	1757	3512	69	1757	1410	352	551	551	551
Grp Volume(v), veh/h	22	278	690	90	560	584	134	0	165	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1534	1757	1752	1829	1757	0	1762	1652	0	0
Q Serve(g_s), s	1.0	9.1	39.3	5.0	30.8	30.8	7.1	0.0	8.8	4.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.1	39.3	5.0	30.8	30.8	7.1	0.0	8.8	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.20	0.33		0.33
Lane Grp Cap(c), veh/h	420	910	796	114	604	630	256	0	256	83	0	0
V/C Ratio(X)	0.05	0.31	0.87	0.79	0.93	0.93	0.52	0.00	0.64	0.79	0.00	0.00
Avail Cap(c_a), veh/h	420	910	796	141	613	640	580	0	581	99	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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.3	13.7	21.0	46.1	31.5	31.5	39.5	0.0	40.3	47.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	12.2	17.1	22.4	21.8	1.2	0.0	2.0	25.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.5	19.2	3.0	18.5	19.2	3.5	0.0	4.5	2.4	0.0	0.0
LnGrp Delay(d),s/veh	29.3	14.6	33.2	63.2	53.9	53.3	40.8	0.0	42.3	72.0	0.0	0.0
LnGrp LOS	C	B	C	E	D	D	D		D	E		
Approach Vol, veh/h		990			1234			299			66	
Approach Delay, s/veh		27.9			54.3			41.6			72.0	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.5	57.9		10.0	29.9	40.5		19.6
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	8.0	31.0		6.0	4.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	7.0	41.3		6.0	3.0	32.8		10.8
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.7		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	2249	700	200	646	210	130	220	20	420	390	410
Future Volume (veh/h)	210	2249	700	200	646	210	130	220	20	420	390	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	228	2445	0	217	702	228	141	239	22	457	424	446
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	68	2072	645	470	3265	1012	105	991	90	105	536	466
Arrive On Green	0.04	0.41	0.00	0.27	0.65	0.65	0.03	0.31	0.31	0.03	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1561	3408	3239	295	3408	1752	1523
Grp Volume(v), veh/h	228	2445	0	217	702	228	141	128	133	457	424	446
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1561	1704	1752	1782	1704	1752	1523
Q Serve(g_s), s	5.0	53.5	0.0	13.4	7.4	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Cycle Q Clear(g_c), s	5.0	53.5	0.0	13.4	7.4	7.8	4.0	7.1	7.3	4.0	28.8	37.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	68	2072	645	470	3265	1012	105	536	545	105	536	466
V/C Ratio(X)	3.37	1.18	0.00	0.46	0.22	0.23	1.34	0.24	0.24	4.36	0.79	0.96
Avail Cap(c_a), veh/h	68	2072	645	470	3265	1012	105	539	548	105	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	38.3	0.0	39.8	9.3	9.4	63.0	33.8	33.8	63.0	41.3	44.3
Incr Delay (d2), s/veh	1105.0	86.2	0.0	0.3	0.2	0.5	205.6	0.1	0.1	1533.0	7.2	30.6
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	23.2	41.3	0.0	6.5	3.5	3.5	4.9	3.5	3.6	24.2	15.0	19.7
LnGrp Delay(d),s/veh	1167.5	124.5	0.0	40.0	9.5	9.9	268.6	33.9	33.9	1596.0	48.5	74.9
LnGrp LOS	F	F		D	A	A	F	C	C	F	D	E
Approach Vol, veh/h		2673			1147			402			1327	
Approach Delay, s/veh		213.5			15.4			116.2			590.3	
Approach LOS		F			B			F			F	

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	41.5	59.5	9.0	46.3	10.0	91.0	9.0	46.3
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	5.0	6.5
Max Green Setting (Gmax), s	10.0	* 54	4.0	40.0	5.0	58.5	4.0	40.0
Max Q Clear Time (g_c+I1), s	15.4	55.5	6.0	39.4	7.0	9.8	6.0	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.1	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	255.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	430	172	210	420	90	271	310	390	260	540	130
Future Volume (veh/h)	70	430	172	210	420	90	271	310	390	260	540	130
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		0.97	1.00		0.97	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	76	467	187	228	457	98	295	337	424	283	587	141
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	97	683	271	136	867	185	264	571	497	264	909	218
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.30	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	1757	2428	964	1757	2860	608	3408	1752	1524	3408	2789	668
Grp Volume(v), veh/h	76	336	318	228	279	276	295	337	424	283	368	360
Grp Sat Flow(s),veh/h/ln	1757	1752	1639	1757	1752	1716	1704	1752	1524	1704	1752	1704
Q Serve(g_s), s	3.6	14.3	14.5	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.1	15.1
Cycle Q Clear(g_c), s	3.6	14.3	14.5	6.5	11.1	11.2	6.5	13.5	21.8	6.5	15.1	15.1
Prop In Lane	1.00		0.59	1.00		0.35	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	97	493	461	136	532	520	264	571	497	264	571	555
V/C Ratio(X)	0.78	0.68	0.69	1.68	0.52	0.53	1.12	0.59	0.85	1.07	0.64	0.65
Avail Cap(c_a), veh/h	119	751	703	136	768	752	264	647	563	264	647	629
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	39.2	26.8	26.9	38.7	24.2	24.3	38.7	23.6	26.4	38.7	24.2	24.2
Incr Delay (d2), s/veh	23.3	1.7	1.9	334.4	0.8	0.8	91.0	1.1	11.1	76.1	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.1	6.8	15.8	5.5	5.4	6.4	6.6	10.7	5.8	7.6	7.4
LnGrp Delay(d),s/veh	62.5	28.5	28.8	373.1	25.0	25.1	129.7	24.7	37.5	114.8	26.0	26.1
LnGrp LOS	E	C	C	F	C	C	F	C	D	F	C	C
Approach Vol, veh/h		730			783			1056			1011	
Approach Delay, s/veh		32.2			126.4			59.2			50.9	
Approach LOS		C			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	33.4	11.0	28.6	11.0	33.4	9.1	30.5
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	31.0	6.5	36.0	6.5	31.0	5.7	36.8
Max Q Clear Time (g_c+I1), s	8.5	23.8	8.5	16.5	8.5	17.1	5.6	13.2
Green Ext Time (p_c), s	0.0	2.6	0.0	3.8	0.0	3.4	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	66.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	350	190	223	860	200	800	716	152	500	1779	250
Future Volume (veh/h)	60	350	190	223	860	200	800	716	152	500	1779	250
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	65	380	207	242	935	217	870	778	165	543	1934	272
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	1240	550	105	1084	471	2016	3267	686	414	1522	469
Arrive On Green	0.10	0.35	0.35	0.06	0.31	0.31	0.59	0.79	0.79	0.12	0.30	0.30
Sat Flow, veh/h	1757	3505	1555	1757	3505	1523	3408	4156	873	3408	5036	1552
Grp Volume(v), veh/h	65	380	207	242	935	217	870	627	316	543	1934	272
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1523	1704	1679	1671	1704	1679	1552
Q Serve(g_s), s	4.5	10.2	8.8	7.8	32.7	20.9	18.2	6.4	6.5	15.8	39.3	19.3
Cycle Q Clear(g_c), s	4.5	10.2	8.8	7.8	32.7	20.9	18.2	6.4	6.5	15.8	39.3	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	173	1240	550	105	1084	471	2016	2639	1314	414	1522	469
V/C Ratio(X)	0.38	0.31	0.38	2.30	0.86	0.46	0.43	0.24	0.24	1.31	1.27	0.58
Avail Cap(c_a), veh/h	173	1240	550	105	1286	559	2016	2639	1314	414	1522	469
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	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	30.4	14.6	61.1	42.3	71.2	14.6	3.7	3.7	57.1	45.3	38.4
Incr Delay (d2), s/veh	6.1	0.6	2.0	611.9	4.8	0.3	0.0	0.1	0.3	156.3	127.0	5.1
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	2.5	5.1	4.1	21.7	16.6	8.8	8.5	2.9	3.1	16.4	36.1	9.0
LnGrp Delay(d),s/veh	61.0	31.1	16.5	673.0	47.1	71.5	14.6	3.8	4.0	213.4	172.3	43.5
LnGrp LOS	E	C	B	F	D	E	B	A	A	F	F	D
Approach Vol, veh/h		652			1394			1813			2749	
Approach Delay, s/veh		29.4			159.6			9.0			167.7	
Approach LOS		C			F			A			F	

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	20.0	110.0	12.0	51.0	84.7	45.3	17.8	45.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 5	6.0	* 6	* 5	* 5
Max Green Setting (Gmax), s	* 16	41.0	* 7.8	* 46	17.5	* 39	* 6.1	* 48
Max Q Clear Time (g_c+I1), s	17.8	8.5	9.8	12.2	20.2	41.3	6.5	34.7
Green Ext Time (p_c), s	0.0	4.8	0.0	2.1	0.0	0.0	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	108.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	611	90	0	770	357	0	0	0	1320	0	450
Future Volume (veh/h)	0	611	90	0	770	357	0	0	0	1320	0	450
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	679	100	0	856	0				1467	0	500
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1371	200	0	1082	484				1566	0	721
Arrive On Green	0.00	0.31	0.31	0.00	0.31	0.00				0.46	0.00	0.46
Sat Flow, veh/h	0	4606	647	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	512	267	0	856	0				1467	0	500
Grp Sat Flow(s),veh/h/ln	0	1679	1730	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	5.6	5.7	0.0	10.1	0.0				18.5	0.0	11.5
Cycle Q Clear(g_c), s	0.0	5.6	5.7	0.0	10.1	0.0				18.5	0.0	11.5
Prop In Lane	0.00		0.37	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1037	534	0	1082	484				1566	0	721
V/C Ratio(X)	0.00	0.49	0.50	0.00	0.79	0.00				0.94	0.00	0.69
Avail Cap(c_a), veh/h	0	1785	920	0	1864	834				1910	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.8	12.8	0.0	14.3	0.0				11.6	0.0	9.7
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	0.5	0.0				7.7	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
%ile BackOfQ(50%),veh/ln	0.0	2.6	2.7	0.0	4.9	0.0				10.2	0.0	5.1
LnGrp Delay(d),s/veh	0.0	12.9	13.1	0.0	14.8	0.0				19.3	0.0	10.9
LnGrp LOS		B	B		B					B		B
Approach Vol, veh/h		779			856						1967	
Approach Delay, s/veh		13.0			14.8						17.2	
Approach LOS		B			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		19.4		25.9		19.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		24.1		25.4		24.1		
Max Q Clear Time (g_c+I1), s		7.7		20.5		12.1		
Green Ext Time (p_c), s		1.0		0.3		1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1851	0	0	987	507	80	0	1330	0	0	0
Future Volume (veh/h)	90	1851	0	0	987	507	80	0	1330	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1908	0	0	1018	523	82	0	1371			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	114	2059	0	0	1564	816	907	0	1393			
Arrive On Green	0.06	0.41	0.00	0.00	0.10	0.10	0.52	0.00	0.52			
Sat Flow, veh/h	1757	5202	0	0	5202	2628	1757	0	2699			
Grp Volume(v), veh/h	93	1908	0	0	1018	523	82	0	1371			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1314	1757	0	1350			
Q Serve(g_s), s	7.3	50.5	0.0	0.0	27.2	26.8	3.3	0.0	69.9			
Cycle Q Clear(g_c), s	7.3	50.5	0.0	0.0	27.2	26.8	3.3	0.0	69.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	114	2059	0	0	1564	816	907	0	1393			
V/C Ratio(X)	0.82	0.93	0.00	0.00	0.65	0.64	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	161	2059	0	0	1564	816	926	0	1423			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	0.78	0.78	1.00	0.00	1.00			
Uniform Delay (d), s/veh	64.6	39.4	0.0	0.0	55.5	55.3	17.2	0.0	33.3			
Incr Delay (d2), s/veh	8.2	5.4	0.0	0.0	1.7	3.0	0.0	0.0	19.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.8	24.3	0.0	0.0	12.9	10.1	1.6	0.0	29.7			
LnGrp Delay(d),s/veh	72.8	44.7	0.0	0.0	57.2	58.3	17.2	0.0	53.2			
LnGrp LOS	E	D			E	E	B		D			
Approach Vol, veh/h		2001			1541			1453				
Approach Delay, s/veh		46.0			57.6			51.1				
Approach LOS		D			E			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.7			13.8	48.9		77.3
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		52.5			9.3	29.2		71.9
Green Ext Time (p_c), s		1.6			0.0	1.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	2891	150	111	1234	220	150	50	111	101	50	90
Future Volume (veh/h)	150	2891	150	111	1234	220	150	50	111	101	50	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.95
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	160	3076	160	118	1313	234	160	53	118	107	53	96
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1287	3085	158	122	1743	484	207	279	238	127	228	193
Arrive On Green	0.12	0.21	0.21	0.01	0.09	0.09	0.06	0.16	0.16	0.04	0.13	0.13
Sat Flow, veh/h	3408	4902	250	3408	6346	1551	3408	1752	1499	3408	1752	1488
Grp Volume(v), veh/h	160	2088	1148	118	1313	234	160	53	118	107	53	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1794	1704	1586	1551	1704	1752	1499	1704	1752	1488
Q Serve(g_s), s	5.8	86.8	88.1	4.8	28.3	12.7	6.5	3.7	10.1	4.4	3.8	8.4
Cycle Q Clear(g_c), s	5.8	86.8	88.1	4.8	28.3	12.7	6.5	3.7	10.1	4.4	3.8	8.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1287	2113	1130	122	1743	484	207	279	238	127	228	193
V/C Ratio(X)	0.12	0.99	1.02	0.97	0.75	0.48	0.77	0.19	0.49	0.85	0.23	0.50
Avail Cap(c_a), veh/h	1287	2113	1130	122	3010	794	236	488	418	127	432	367
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.22	0.22	0.22	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	54.9	55.5	69.1	59.0	33.5	64.8	51.0	53.7	67.0	54.7	56.7
Incr Delay (d2), s/veh	0.0	6.8	16.6	57.8	2.1	2.3	10.9	0.1	0.6	36.5	0.2	0.7
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	2.8	42.4	49.1	3.3	12.7	5.8	3.4	1.8	4.2	2.7	1.9	3.5
LnGrp Delay(d),s/veh	40.7	61.7	72.1	126.9	61.1	35.9	75.7	51.2	54.3	103.5	54.8	57.4
LnGrp LOS	D	E	F	F	E	D	E	D	D	F	D	E
Approach Vol, veh/h		3396			1665			331			256	
Approach Delay, s/veh		64.3			62.2			64.2			76.1	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	94.1	13.5	23.2	58.9	44.5	9.4	27.3
Change Period (Y+Rc), s	* 4.2	6.0	5.0	* 5	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 5	71.4	9.7	* 35	10.0	* 66	* 5.2	39.0
Max Q Clear Time (g_c+I1), s	6.8	90.1	8.5	10.4	7.8	30.3	6.4	12.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.1	8.2	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	64.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	2643	210	130	1225	230	130	40	190	131	40	90
Future Volume (veh/h)	190	2643	210	130	1225	230	130	40	190	131	40	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.95	1.00		0.94
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	202	2812	223	138	1303	245	138	0	231	139	43	96
Adj No. of Lanes	2	3	1	1	3	1	2	0	2	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1260	3207	1054	118	1618	555	136	0	350	122	213	171
Arrive On Green	0.74	1.00	1.00	0.02	0.11	0.11	0.04	0.00	0.12	0.04	0.12	0.12
Sat Flow, veh/h	3408	5036	1561	1757	5036	1553	3514	0	2964	3408	1845	1480
Grp Volume(v), veh/h	202	2812	223	138	1303	245	138	0	231	139	43	96
Grp Sat Flow(s),veh/h/ln	1704	1679	1561	1757	1679	1553	1757	0	1482	1704	1845	1480
Q Serve(g_s), s	2.5	0.0	0.0	9.4	35.4	15.5	5.4	0.0	8.9	5.0	3.0	4.2
Cycle Q Clear(g_c), s	2.5	0.0	0.0	9.4	35.4	15.5	5.4	0.0	8.9	5.0	3.0	4.2
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	1260	3207	1054	118	1618	555	136	0	350	122	213	171
V/C Ratio(X)	0.16	0.88	0.21	1.17	0.81	0.44	1.02	0.00	0.66	1.14	0.20	0.56
Avail Cap(c_a), veh/h	1260	3207	1054	118	2266	755	136	0	860	122	530	425
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.70	0.70	0.70	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	0.0	68.4	58.3	47.1	67.3	0.0	42.8	67.5	56.1	14.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	122.3	3.1	1.8	82.2	0.0	0.8	124.8	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.1	0.0	8.6	17.0	7.0	4.2	0.0	3.7	4.5	1.5	1.8
LnGrp Delay(d),s/veh	11.8	0.4	0.0	190.7	61.4	48.8	149.7	0.0	43.6	192.3	56.3	15.3
LnGrp LOS	B	A	A	F	E	D	F		D	F	E	B
Approach Vol, veh/h		3237			1686			369			278	
Approach Delay, s/veh		1.1			70.2			83.3			110.1	
Approach LOS		A			E			F			F	

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	13.6	95.1	10.1	21.2	57.8	51.0	10.0	21.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 9.4	65.1	* 5.4	* 40	11.5	* 63	* 5	40.6
Max Q Clear Time (g_c+I1), s	11.4	2.0	7.4	6.2	4.5	37.4	7.0	10.9
Green Ext Time (p_c), s	0.0	29.5	0.0	0.3	0.2	7.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2734	110	80	1475	160	80	30	110	70	20	80
Future Volume (veh/h)	160	2734	110	80	1475	160	80	30	110	70	20	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.95	1.00		0.95
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	172	2940	118	86	1586	172	86	32	118	75	22	86
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	193	2428	819	300	2528	274	79	44	161	94	269	218
Arrive On Green	0.22	0.96	0.96	0.34	1.00	1.00	0.05	0.13	0.13	0.05	0.15	0.15
Sat Flow, veh/h	1757	5036	1552	1757	4595	497	1757	331	1221	1757	1845	1494
Grp Volume(v), veh/h	172	2940	118	86	1158	600	86	0	150	75	22	86
Grp Sat Flow(s),veh/h/ln	1757	1679	1552	1757	1679	1735	1757	0	1553	1757	1845	1494
Q Serve(g_s), s	13.3	67.5	0.2	5.0	0.0	0.0	6.3	0.0	13.0	5.9	1.4	7.3
Cycle Q Clear(g_c), s	13.3	67.5	0.2	5.0	0.0	0.0	6.3	0.0	13.0	5.9	1.4	7.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	193	2428	819	300	1847	955	79	0	204	94	269	218
V/C Ratio(X)	0.89	1.21	0.14	0.29	0.63	0.63	1.09	0.00	0.73	0.80	0.08	0.39
Avail Cap(c_a), veh/h	238	2428	819	300	1847	955	79	0	405	113	514	416
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.62	0.62	0.62	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	2.5	0.4	39.9	0.0	0.0	66.8	0.0	58.4	65.5	51.7	54.2
Incr Delay (d2), s/veh	3.2	95.3	0.0	0.1	1.0	2.0	127.2	0.0	1.9	23.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	40.8	0.1	2.4	0.3	0.5	5.8	0.0	5.7	3.5	0.7	3.0
LnGrp Delay(d),s/veh	57.0	97.8	0.4	40.0	1.0	2.0	194.6	0.0	60.3	88.6	51.7	54.6
LnGrp LOS	E	F	A	D	A	A	F		E	F	D	D
Approach Vol, veh/h		3230			1844			236			183	
Approach Delay, s/veh		92.0			3.1			109.3			68.2	
Approach LOS		F			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.9	73.5	10.5	26.1	20.4	83.0	12.5	24.1
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	7.1	* 68	* 6.3	39.0	19.0	54.8	9.0	* 37
Max Q Clear Time (g_c+I1), s	7.0	69.5	8.3	9.3	15.3	2.0	7.9	15.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.1	12.5	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	62.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	770	1884	180	171	1185	61	210	520	291	62	230	200
Future Volume (veh/h)	770	1884	180	171	1185	61	210	520	291	62	230	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.98
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	828	2026	194	184	1274	66	226	559	313	67	247	215
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1018	2504	780	214	1241	382	293	859	380	85	359	769
Arrive On Green	0.60	0.99	0.99	0.06	0.25	0.25	0.09	0.25	0.25	0.05	0.19	0.19
Sat Flow, veh/h	3408	5036	1568	3408	5036	1549	3408	3505	1549	1757	1845	1544
Grp Volume(v), veh/h	828	2026	194	184	1274	66	226	559	313	67	247	215
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1549	1704	1752	1549	1757	1845	1544
Q Serve(g_s), s	26.6	1.6	0.1	7.5	34.5	3.9	9.1	20.1	26.8	5.3	17.4	0.0
Cycle Q Clear(g_c), s	26.6	1.6	0.1	7.5	34.5	3.9	9.1	20.1	26.8	5.3	17.4	0.0
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	1018	2504	780	214	1241	382	293	859	380	85	359	769
V/C Ratio(X)	0.81	0.81	0.25	0.86	1.03	0.17	0.77	0.65	0.82	0.79	0.69	0.28
Avail Cap(c_a), veh/h	1018	2504	780	214	1241	382	293	1054	466	114	540	920
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	0.2	0.1	65.0	52.8	29.1	62.6	47.4	50.0	65.9	52.4	20.8
Incr Delay (d2), s/veh	1.0	0.6	0.2	26.7	32.6	1.0	10.8	0.5	8.0	16.4	0.9	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	12.3	0.3	0.1	4.3	19.7	1.8	4.7	9.8	12.3	3.0	9.0	4.9
LnGrp Delay(d),s/veh	26.2	0.8	0.2	91.7	85.3	30.0	73.4	48.0	58.0	82.3	53.3	20.9
LnGrp LOS	C	A	A	F	F	C	E	D	E	F	D	C
Approach Vol, veh/h		3048			1524			1098			529	
Approach Delay, s/veh		7.7			83.7			56.1			43.8	
Approach LOS		A			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	75.9	17.8	33.2	48.1	40.8	11.0	40.1
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 8.8	* 60	* 10	* 41	* 34	* 35	* 9.1	42.1
Max Q Clear Time (g_c+I1), s	9.5	3.6	11.1	19.4	28.6	36.5	7.3	28.8
Green Ext Time (p_c), s	0.0	13.8	0.0	1.1	0.9	0.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1654	410	210	1198	370	150	100	70	70	40	69
Future Volume (veh/h)	173	1654	410	210	1198	370	150	100	70	70	40	69
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	188	1798	446	228	1302	402	163	109	76	76	43	75
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	449	2048	494	247	1434	441	186	163	114	94	301	245
Arrive On Green	0.26	0.51	0.51	0.14	0.38	0.38	0.05	0.16	0.16	0.05	0.16	0.16
Sat Flow, veh/h	1757	4019	969	1757	3775	1161	3408	993	693	1757	1845	1500
Grp Volume(v), veh/h	188	1494	750	228	1157	547	163	0	185	76	43	75
Grp Sat Flow(s),veh/h/ln	1757	1679	1630	1757	1679	1579	1704	0	1686	1757	1845	1500
Q Serve(g_s), s	13.4	58.9	62.7	19.2	48.9	49.2	7.1	0.0	15.5	6.4	3.0	4.0
Cycle Q Clear(g_c), s	13.4	58.9	62.7	19.2	48.9	49.2	7.1	0.0	15.5	6.4	3.0	4.0
Prop In Lane	1.00		0.59	1.00		0.74	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	449	1711	831	247	1275	600	186	0	277	94	301	245
V/C Ratio(X)	0.42	0.87	0.90	0.92	0.91	0.91	0.87	0.00	0.67	0.81	0.14	0.31
Avail Cap(c_a), veh/h	449	1711	831	247	1419	667	186	0	429	94	467	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	32.5	33.4	63.6	44.0	44.1	70.4	0.0	58.8	70.3	53.8	20.2
Incr Delay (d2), s/veh	0.2	6.5	15.0	36.4	11.0	20.4	32.8	0.0	1.0	37.4	0.1	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	6.5	28.7	31.6	11.8	24.6	24.8	4.2	0.0	7.3	4.1	1.5	1.7
LnGrp Delay(d),s/veh	46.8	39.0	48.5	100.1	55.0	64.5	103.2	0.0	59.9	107.6	53.9	20.4
LnGrp LOS	D	D	D	F	D	E	F		E	F	D	C
Approach Vol, veh/h		2432			1932			348			194	
Approach Delay, s/veh		42.5			63.0			80.2			62.0	
Approach LOS		D			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.3	82.8	12.4	29.5	44.8	63.4	12.2	29.7
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 4.2	* 5
Max Green Setting (Gmax), s	* 21	* 63	* 8.2	* 38	* 21	* 63	* 8	* 38
Max Q Clear Time (g_c+I1), s	21.2	64.7	9.1	6.0	15.4	51.2	8.4	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.1	5.7	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	1360	190	290	1570	165	60	25	80	74	24	38
Future Volume (veh/h)	84	1360	190	290	1570	165	60	25	80	74	24	38
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.99		0.96	0.99		0.96
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	94	1528	213	326	1764	185	67	28	90	83	27	43
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	1631	227	619	3081	322	238	309	252	154	52	66
Arrive On Green	0.07	0.37	0.37	0.35	0.67	0.67	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1757	4442	618	1757	4623	483	1297	1845	1502	695	310	393
Grp Volume(v), veh/h	94	1154	587	326	1279	670	67	28	90	153	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1703	1757	1679	1748	1297	1845	1502	1397	0	0
Q Serve(g_s), s	7.9	49.7	49.9	22.1	30.8	31.1	0.0	1.9	8.0	13.3	0.0	0.0
Cycle Q Clear(g_c), s	7.9	49.7	49.9	22.1	30.8	31.1	8.7	1.9	8.0	15.3	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.28	1.00		1.00	0.54		0.28
Lane Grp Cap(c), veh/h	114	1233	625	619	2238	1165	238	309	252	271	0	0
V/C Ratio(X)	0.82	0.94	0.94	0.53	0.57	0.57	0.28	0.09	0.36	0.56	0.00	0.00
Avail Cap(c_a), veh/h	150	1276	647	619	2238	1165	359	481	391	400	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.3	45.8	45.8	38.6	13.5	13.5	55.6	52.7	55.3	58.2	0.0	0.0
Incr Delay (d2), s/veh	18.6	14.3	23.7	0.4	1.1	2.1	0.2	0.0	0.3	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	25.5	27.6	10.8	14.5	15.6	2.5	1.0	3.3	6.0	0.0	0.0
LnGrp Delay(d),s/veh	87.9	60.1	69.6	39.0	14.5	15.6	55.8	52.8	55.6	58.9	0.0	0.0
LnGrp LOS	F	E	E	D	B	B	E	D	E	E		
Approach Vol, veh/h		1835			2275			185			153	
Approach Delay, s/veh		64.5			18.4			55.2			58.9	
Approach LOS		E			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	58.9	61.1		30.1	14.0	106.0		30.1
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	38.8	* 57		39.1	* 13	83.0		39.1
Max Q Clear Time (g_c+I1), s	24.1	51.9		10.7	9.9	33.1		17.3
Green Ext Time (p_c), s	0.4	3.1		0.4	0.0	10.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1038	348	800	1781	710	302	790	460	540	1150	392
Future Volume (veh/h)	198	1038	348	800	1781	710	302	790	460	540	1150	392
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	215	1128	378	870	1936	772	328	859	500	587	1250	426
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	551	1317	405	454	1175	636	377	1544	1214	472	1685	773
Arrive On Green	0.16	0.26	0.26	0.09	0.16	0.16	0.11	0.31	0.31	0.14	0.33	0.33
Sat Flow, veh/h	3408	5036	1550	3408	5036	2724	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	215	1128	378	870	1936	772	328	859	500	587	1250	426
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	8.5	32.0	35.7	20.0	35.0	35.0	14.2	21.4	10.0	20.8	33.0	8.5
Cycle Q Clear(g_c), s	8.5	32.0	35.7	20.0	35.0	35.0	14.2	21.4	10.0	20.8	33.0	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	551	1317	405	454	1175	636	377	1544	1214	472	1685	773
V/C Ratio(X)	0.39	0.86	0.93	1.91	1.65	1.21	0.87	0.56	0.41	1.24	0.74	0.55
Avail Cap(c_a), veh/h	568	1343	413	454	1175	636	545	1544	1214	472	1685	773
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	56.3	52.7	54.1	68.3	63.3	63.3	65.7	43.5	11.2	64.6	44.2	10.0
Incr Delay (d2), s/veh	0.2	5.3	27.2	412.3	291.8	98.0	7.6	1.5	1.0	111.7	0.3	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	4.0	15.5	18.4	35.4	48.0	21.8	7.1	10.1	3.9	17.1	15.3	6.6
LnGrp Delay(d),s/veh	56.4	58.0	81.3	480.6	355.0	161.2	73.2	44.9	12.3	176.3	44.5	10.3
LnGrp LOS	E	E	F	F	F	F	E	D	B	F	D	B
Approach Vol, veh/h		1721			3578			1687			2263	
Approach Delay, s/veh		62.9			343.7			40.8			72.2	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	45.2	22.6	56.2	30.2	41.0	26.8	52.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	24.0	42.0	25.0	35.0	20.0	46.0
Max Q Clear Time (g_c+I1), s	22.0	37.7	16.2	35.0	10.5	37.0	22.8	23.4
Green Ext Time (p_c), s	0.0	1.3	0.4	4.1	0.3	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	169.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1428	330	390	2890	170	161	80	110	50	40	140
Future Volume (veh/h)	300	1428	330	390	2890	170	161	80	110	50	40	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	326	1552	359	424	3141	185	175	87	120	54	43	152
Adj No. of Lanes	1	3	1	1	3	0	1	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	1681	581	561	2284	132	91	311	253	69	287	233
Arrive On Green	0.39	0.67	0.67	0.64	0.94	0.94	0.05	0.17	0.17	0.04	0.16	0.16
Sat Flow, veh/h	1757	5036	1496	1757	4868	281	1757	1845	1502	1757	1845	1498
Grp Volume(v), veh/h	326	1552	359	424	2147	1179	175	87	120	54	43	152
Grp Sat Flow(s),veh/h/ln	1757	1679	1496	1757	1679	1792	1757	1845	1502	1757	1845	1498
Q Serve(g_s), s	26.9	40.1	6.5	25.3	70.4	70.4	7.8	6.2	5.7	4.6	3.0	14.3
Cycle Q Clear(g_c), s	26.9	40.1	6.5	25.3	70.4	70.4	7.8	6.2	5.7	4.6	3.0	14.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1681	581	561	1575	841	91	311	253	69	287	233
V/C Ratio(X)	0.95	0.92	0.62	0.76	1.36	1.40	1.92	0.28	0.47	0.78	0.15	0.65
Avail Cap(c_a), veh/h	747	2192	733	561	1575	841	91	443	360	91	443	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	23.3	7.1	23.1	4.6	4.6	71.1	54.4	15.9	71.4	54.7	59.5
Incr Delay (d2), s/veh	2.5	4.1	1.8	0.5	163.6	182.1	449.8	0.2	0.5	19.6	0.1	1.1
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	13.3	18.7	3.2	12.1	61.6	70.0	15.2	3.2	2.4	2.6	1.5	6.0
LnGrp Delay(d),s/veh	47.4	27.4	8.8	23.6	168.2	186.7	520.9	54.6	16.4	91.0	54.8	60.6
LnGrp LOS	D	C	A	C	F	F	F	D	B	F	D	E
Approach Vol, veh/h		2237			3750			382			249	
Approach Delay, s/veh		27.3			157.7			256.2			66.2	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	53.9	56.1	12.0	28.1	33.5	76.4	10.1	30.0
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	21.8	* 65	* 7.8	* 36	* 64	23.3	* 7.8	* 36
Max Q Clear Time (g_c+I1), s	27.3	42.1	9.8	16.3	28.9	72.4	6.6	8.2
Green Ext Time (p_c), s	0.0	8.0	0.0	0.4	0.4	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	115.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1216	201	380	3218	210	161	140	140	120	200	101
Future Volume (veh/h)	131	1216	201	380	3218	210	161	140	140	120	200	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.96	1.00		0.98
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	142	1322	218	413	3498	228	175	152	152	130	217	110
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	320	2742	849	460	2770	176	132	274	234	120	347	169
Arrive On Green	0.19	1.00	1.00	0.27	1.00	1.00	0.04	0.16	0.16	0.04	0.15	0.15
Sat Flow, veh/h	3408	5036	1559	3408	4832	308	3408	1752	1498	3408	2272	1105
Grp Volume(v), veh/h	142	1322	218	413	2405	1321	175	152	152	130	165	162
Grp Sat Flow(s),veh/h/ln	1704	1679	1559	1704	1679	1783	1704	1752	1498	1704	1752	1624
Q Serve(g_s), s	5.5	0.0	0.0	17.5	0.0	84.2	5.8	12.0	14.3	5.3	13.2	14.1
Cycle Q Clear(g_c), s	5.5	0.0	0.0	17.5	0.0	84.2	5.8	12.0	14.3	5.3	13.2	14.1
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	320	2742	849	460	1925	1022	132	274	234	120	268	248
V/C Ratio(X)	0.44	0.48	0.26	0.90	1.25	1.29	1.33	0.56	0.65	1.08	0.62	0.65
Avail Cap(c_a), veh/h	320	2742	849	1518	1925	1022	132	403	345	120	397	368
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	0.0	0.0	53.8	0.0	0.0	72.1	58.5	59.4	72.3	59.4	59.8
Incr Delay (d2), s/veh	0.2	0.4	0.5	0.2	112.7	132.5	190.4	0.7	1.1	105.0	0.9	1.1
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	2.6	0.1	0.1	8.3	30.1	37.6	6.2	5.9	6.0	4.2	6.5	6.4
LnGrp Delay(d),s/veh	57.7	0.4	0.5	54.0	112.7	132.5	262.5	59.1	60.6	177.3	60.3	60.9
LnGrp LOS	E	A	A	D	F	F	F	E	E	F	E	E
Approach Vol, veh/h		1682			4139			479			457	
Approach Delay, s/veh		5.2			113.1			133.9			93.8	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.4	87.7	10.0	27.9	20.1	92.0	9.5	28.4
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	* 4.2	5.0
Max Green Setting (Gmax), s	* 67	24.0	* 5.8	34.0	4.8	* 86	* 5.3	34.5
Max Q Clear Time (g_c+I1), s	19.5	2.0	7.8	16.1	7.5	86.2	7.3	16.3
Green Ext Time (p_c), s	0.7	6.1	0.0	1.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	86.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	501	964	181	130	1866	100	601	870	240	90	1030	1431
Future Volume (veh/h)	501	964	181	130	1866	100	601	870	240	90	1030	1431
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	516	994	187	134	1924	103	620	897	247	93	1062	1475
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	585	2206	682	178	1544	476	495	2207	622	135	848	1133
Arrive On Green	0.34	0.88	0.88	0.05	0.31	0.31	0.15	0.35	0.35	0.04	0.24	0.24
Sat Flow, veh/h	3408	5036	1557	3408	5036	1553	3408	6346	1554	3408	3505	2725
Grp Volume(v), veh/h	516	994	187	134	1924	103	620	897	247	93	1062	1475
Grp Sat Flow(s),veh/h/ln	1704	1679	1557	1704	1679	1553	1704	1586	1554	1704	1752	1363
Q Serve(g_s), s	21.4	6.1	2.9	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.2
Cycle Q Clear(g_c), s	21.4	6.1	2.9	5.8	46.0	6.4	21.8	16.1	17.0	4.0	36.3	29.2
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	585	2206	682	178	1544	476	495	2207	622	135	848	1133
V/C Ratio(X)	0.88	0.45	0.27	0.75	1.25	0.22	1.25	0.41	0.40	0.69	1.25	1.30
Avail Cap(c_a), veh/h	586	2206	682	218	1544	476	495	2207	622	164	848	1133
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	5.6	5.4	70.1	52.0	28.9	64.1	37.2	32.1	71.1	56.9	23.6
Incr Delay (d2), s/veh	12.0	0.5	0.8	8.4	116.2	1.0	129.1	0.0	0.2	5.9	123.2	142.4
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	11.0	2.7	1.3	2.9	37.9	2.9	19.1	7.0	7.3	2.0	32.1	33.3
LnGrp Delay(d),s/veh	59.8	6.1	6.2	78.5	168.2	29.9	193.2	37.2	32.3	77.0	180.0	166.0
LnGrp LOS	E	A	A	E	F	C	F	D	C	E	F	F
Approach Vol, veh/h		1697			2161			1764			2630	
Approach Delay, s/veh		22.5			156.1			91.3			168.5	
Approach LOS		C			F			F			F	

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	12.0	71.7	26.0	42.3	31.7	52.0	10.1	58.2
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	* 6	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 9.6	36.0	* 22	* 36	25.8	* 46	* 7.2	50.6
Max Q Clear Time (g_c+I1), s	7.8	8.1	23.8	38.3	23.4	48.0	6.0	19.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.3	0.0	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	118.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	30	60	150	60	80	180	1662	160	350	1588	100
Future Volume (veh/h)	70	30	60	150	60	80	180	1662	160	350	1588	100
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		0.94	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	74	32	64	160	64	85	191	1768	170	372	1689	106
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	133	58	158	240	95	127	162	1289	394	631	2707	838
Arrive On Green	0.11	0.11	0.11	0.14	0.14	0.14	0.09	0.26	0.26	0.36	0.54	0.54
Sat Flow, veh/h	1244	538	1475	1757	698	927	1757	5036	1537	1757	5036	1559
Grp Volume(v), veh/h	106	0	64	160	0	149	191	1768	170	372	1689	106
Grp Sat Flow(s),veh/h/ln	1782	0	1475	1757	0	1625	1757	1679	1537	1757	1679	1559
Q Serve(g_s), s	8.5	0.0	6.1	13.0	0.0	13.1	13.8	38.4	13.9	25.8	35.0	5.1
Cycle Q Clear(g_c), s	8.5	0.0	6.1	13.0	0.0	13.1	13.8	38.4	13.9	25.8	35.0	5.1
Prop In Lane	0.70		1.00	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	0	158	240	0	222	162	1289	394	631	2707	838
V/C Ratio(X)	0.55	0.00	0.40	0.67	0.00	0.67	1.18	1.37	0.43	0.59	0.62	0.13
Avail Cap(c_a), veh/h	452	0	374	468	0	433	162	1289	394	631	2707	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	0.0	62.5	61.5	0.0	61.6	68.1	55.8	46.7	39.1	24.1	17.2
Incr Delay (d2), s/veh	0.9	0.0	0.6	1.2	0.0	1.3	128.0	172.1	3.4	1.0	1.1	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	4.2	0.0	2.5	6.4	0.0	6.0	12.4	38.3	6.3	12.7	16.4	2.3
LnGrp Delay(d),s/veh	64.5	0.0	63.1	62.7	0.0	62.9	196.1	227.9	50.1	40.1	25.2	17.5
LnGrp LOS	E		E	E		E	F	F	D	D	C	B
Approach Vol, veh/h		170			309			2129			2167	
Approach Delay, s/veh		64.0			62.8			210.9			27.4	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	60.2	44.8		20.3	18.0	87.0		24.7
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 15	* 38		* 38	* 14	* 39		40.0
Max Q Clear Time (g_c+I1), s	27.8	40.4		10.5	15.8	37.0		15.1
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	1.7		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	112.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	20	104	20	20	20	475	1602	20	30	1528	290
Future Volume (veh/h)	70	20	104	20	20	20	475	1602	20	30	1528	290
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		0.94	1.00		0.93	1.00		0.98	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	56	0	141	21	21	21	495	1669	21	31	1592	302
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	175	0	293	50	50	50	282	1094	481	628	2489	469
Arrive On Green	0.10	0.00	0.10	0.09	0.09	0.09	0.08	0.31	0.31	0.36	0.59	0.59
Sat Flow, veh/h	1757	0	2939	557	557	557	3408	3505	1543	1757	4241	800
Grp Volume(v), veh/h	56	0	141	63	0	0	495	1669	21	31	1258	636
Grp Sat Flow(s),veh/h/ln	1757	0	1470	1670	0	0	1704	1752	1543	1757	1679	1684
Q Serve(g_s), s	4.4	0.0	6.8	5.4	0.0	0.0	12.4	46.8	1.4	1.7	37.1	37.6
Cycle Q Clear(g_c), s	4.4	0.0	6.8	5.4	0.0	0.0	12.4	46.8	1.4	1.7	37.1	37.6
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	175	0	293	149	0	0	282	1094	481	628	1970	988
V/C Ratio(X)	0.32	0.00	0.48	0.42	0.00	0.00	1.76	1.53	0.04	0.05	0.64	0.64
Avail Cap(c_a), veh/h	445	0	745	445	0	0	282	1094	481	628	1970	988
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	0.0	63.9	64.6	0.0	0.0	68.8	51.6	36.0	31.5	20.5	20.6
Incr Delay (d2), s/veh	1.0	0.0	1.2	1.9	0.0	0.0	354.8	241.5	0.2	0.0	1.6	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.8	2.5	0.0	0.0	19.7	59.3	0.6	0.8	17.6	18.4
LnGrp Delay(d),s/veh	63.8	0.0	65.1	66.5	0.0	0.0	423.6	293.1	36.2	31.5	22.1	23.8
LnGrp LOS	E		E	E			F	F	D	C	C	C
Approach Vol, veh/h		197			63			2185			1925	
Approach Delay, s/veh		64.7			66.5			320.2			22.8	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	59.6	52.8		20.0	18.4	94.0		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	12.4	38.4		40.0
Max Q Clear Time (g_c+I1), s	3.7	48.8		8.8	14.4	39.6		7.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	174.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	50	30	410	30	181	70	1526	290	131	1401	50
Future Volume (veh/h)	70	50	30	410	30	181	70	1526	290	131	1401	50
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		0.94	1.00		0.97	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	78	56	33	456	33	201	78	1696	322	146	1557	56
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	91	254	134	502	423	366	114	1902	588	726	2839	102
Arrive On Green	0.03	0.12	0.12	0.15	0.24	0.24	0.03	0.38	0.38	0.21	0.57	0.57
Sat Flow, veh/h	3408	2168	1148	3408	1752	1516	3408	5036	1556	3408	4986	179
Grp Volume(v), veh/h	78	44	45	456	33	201	78	1696	322	146	1048	565
Grp Sat Flow(s),veh/h/ln	1704	1752	1563	1704	1752	1516	1704	1679	1556	1704	1679	1808
Q Serve(g_s), s	3.4	3.4	3.9	19.8	2.2	17.4	3.4	47.4	24.4	5.3	29.3	29.3
Cycle Q Clear(g_c), s	3.4	3.4	3.9	19.8	2.2	17.4	3.4	47.4	24.4	5.3	29.3	29.3
Prop In Lane	1.00		0.73	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	91	205	183	502	423	366	114	1902	588	726	1912	1030
V/C Ratio(X)	0.86	0.21	0.25	0.91	0.08	0.55	0.69	0.89	0.55	0.20	0.55	0.55
Avail Cap(c_a), veh/h	91	456	406	568	432	374	114	1917	592	726	1912	1030
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	72.7	60.0	60.2	62.9	44.0	49.8	71.7	43.8	36.6	48.5	20.2	20.2
Incr Delay (d2), s/veh	49.8	0.2	0.3	16.1	0.0	0.9	20.1	6.8	3.6	0.1	1.1	2.1
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	2.2	1.7	1.7	10.4	1.1	7.4	1.9	23.2	11.1	2.5	13.8	15.2
LnGrp Delay(d),s/veh	122.5	60.2	60.4	79.1	44.0	50.7	91.9	50.6	40.3	48.6	21.4	22.3
LnGrp LOS	F	E	E	E	D	D	F	D	D	D	C	C
Approach Vol, veh/h		167			690			2096			1759	
Approach Delay, s/veh		89.3			69.1			50.6			23.9	
Approach LOS		F			E			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	37.9	62.7	27.1	22.3	9.2	91.4	8.2	41.2
Change Period (Y+Rc), s	6.0	* 6	* 5	* 4.7	* 4.2	6.0	* 4.2	* 5
Max Green Setting (Gmax), s	9.8	* 57	* 25	* 39	* 5	61.9	* 4	* 37
Max Q Clear Time (g_c+I1), s	7.3	49.4	21.8	5.9	5.4	31.3	5.4	19.4
Green Ext Time (p_c), s	0.1	7.3	0.4	0.3	0.0	9.6	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1200	251	31	540	20	681	20	111	20	20	20
Future Volume (veh/h)	60	1200	251	31	540	20	681	20	111	20	20	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.91
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	65	1290	270	33	581	22	859	0	0	22	22	22
Adj No. of Lanes	1	2	0	1	2	0	2	1	0	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	83	1184	244	70	1388	52	979	514	0	28	28	28
Arrive On Green	0.05	0.41	0.41	0.04	0.40	0.40	0.28	0.00	0.00	0.05	0.05	0.05
Sat Flow, veh/h	1757	2881	594	1757	3438	130	3514	1845	0	551	551	551
Grp Volume(v), veh/h	65	777	783	33	296	307	859	0	0	66	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1722	1757	1752	1815	1757	1845	0	1652	0	0
Q Serve(g_s), s	3.7	41.1	41.1	1.8	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	41.1	41.1	1.8	12.1	12.1	23.3	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.07	1.00		0.00	0.33		0.33
Lane Grp Cap(c), veh/h	83	720	708	70	707	733	979	514	0	83	0	0
V/C Ratio(X)	0.78	1.08	1.11	0.47	0.42	0.42	0.88	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	123	720	708	70	707	733	1160	609	0	99	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	1.00	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	47.1	29.4	29.4	47.0	21.4	21.4	34.4	0.0	0.0	47.0	0.0	0.0
Incr Delay (d2), s/veh	9.4	56.9	66.6	20.9	1.8	1.8	6.6	0.0	0.0	25.1	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	31.2	32.6	1.3	6.2	6.4	12.2	0.0	0.0	2.4	0.0	0.0
LnGrp Delay(d),s/veh	56.5	86.4	96.0	67.8	23.2	23.2	41.1	0.0	0.0	72.0	0.0	0.0
LnGrp LOS	E	F	F	E	C	C	D			E		
Approach Vol, veh/h		1625			636			859			66	
Approach Delay, s/veh		89.8			25.5			41.1			72.0	
Approach LOS		F			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	47.1		10.0	10.7	46.4		32.9
Change Period (Y+Rc), s	6.0	6.0		5.0	6.0	6.0		5.0
Max Green Setting (Gmax), s	4.0	35.0		6.0	7.0	32.0		33.0
Max Q Clear Time (g_c+I1), s	3.8	43.1		6.0	5.7	14.1		25.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	63.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	1169	160	50	2269	370	710	440	50	270	170	460
Future Volume (veh/h)	510	1169	160	50	2269	370	710	440	50	270	170	460
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	537	1231	0	53	2388	389	747	463	53	284	179	484
Adj No. of Lanes	1	3	1	1	3	1	2	2	0	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	1390	433	184	1801	556	446	652	74	751	539	469
Arrive On Green	0.03	0.28	0.00	0.10	0.36	0.36	0.13	0.21	0.21	0.22	0.31	0.31
Sat Flow, veh/h	1757	5036	1568	1757	5036	1555	3408	3158	360	3408	1752	1523
Grp Volume(v), veh/h	537	1231	0	53	2388	389	747	256	260	284	179	484
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1555	1704	1752	1765	1704	1752	1523
Q Serve(g_s), s	4.0	30.4	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Cycle Q Clear(g_c), s	4.0	30.4	0.0	3.6	46.5	14.1	17.0	17.6	17.8	9.2	10.2	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	54	1390	433	184	1801	556	446	362	365	751	539	469
V/C Ratio(X)	9.93	0.89	0.00	0.29	1.33	0.70	1.68	0.71	0.71	0.38	0.33	1.03
Avail Cap(c_a), veh/h	54	1588	495	184	1801	556	446	607	611	751	539	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	45.1	0.0	53.7	41.8	9.2	56.5	47.9	48.0	43.1	34.7	45.0
Incr Delay (d2), s/veh	4057.0	8.6	0.0	0.3	150.5	7.2	313.9	1.0	1.0	0.1	0.1	50.3
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	62.9	15.2	0.0	1.8	46.6	7.1	27.4	8.6	8.8	4.4	5.0	23.3
LnGrp Delay(d),s/veh	4120.0	53.7	0.0	54.0	192.3	16.4	370.4	48.9	49.0	43.2	34.8	95.3
LnGrp LOS	F	D		D	F	B	F	D	D	D	C	F
Approach Vol, veh/h		1768			2830			1263			947	
Approach Delay, s/veh		1288.8			165.5			239.1			68.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	41.9	22.0	46.5	9.0	52.5	35.1	33.4
Change Period (Y+Rc), s	6.0	* 6	5.0	6.5	5.0	6.0	6.5	* 6.5
Max Green Setting (Gmax), s	9.5	* 41	17.0	40.0	4.0	46.5	12.0	* 45
Max Q Clear Time (g_c+I1), s	5.6	32.4	19.0	42.0	6.0	48.5	11.2	19.8
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	457.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	540	312	340	510	240	192	510	160	30	330	90
Future Volume (veh/h)	90	540	312	340	510	240	192	510	160	30	330	90
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		0.97	1.00		0.98	1.00		0.97	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	112	675	390	425	638	300	240	638	200	38	412	112
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	2	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	139	719	415	287	974	458	186	730	228	87	680	183
Arrive On Green	0.08	0.34	0.34	0.16	0.42	0.42	0.05	0.28	0.28	0.03	0.25	0.25
Sat Flow, veh/h	1757	2118	1223	1757	2296	1079	3408	2607	816	3408	2711	728
Grp Volume(v), veh/h	112	558	507	425	487	451	240	429	409	38	265	259
Grp Sat Flow(s),veh/h/ln	1757	1752	1589	1757	1752	1623	1704	1752	1671	1704	1752	1687
Q Serve(g_s), s	6.6	32.3	32.3	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Cycle Q Clear(g_c), s	6.6	32.3	32.3	17.1	23.2	23.2	5.7	24.4	24.4	1.1	13.9	14.2
Prop In Lane	1.00		0.77	1.00		0.67	1.00		0.49	1.00		0.43
Lane Grp Cap(c), veh/h	139	595	539	287	743	688	186	491	468	87	440	424
V/C Ratio(X)	0.81	0.94	0.94	1.48	0.66	0.66	1.29	0.87	0.88	0.44	0.60	0.61
Avail Cap(c_a), veh/h	160	604	547	287	743	688	186	552	526	130	523	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	33.5	33.5	43.7	24.0	24.0	49.4	35.9	35.9	50.2	34.5	34.6
Incr Delay (d2), s/veh	23.0	22.5	24.2	233.1	2.1	2.2	165.0	13.4	14.1	3.4	1.4	1.6
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	4.1	19.2	17.7	26.8	11.5	10.7	6.9	13.6	13.1	0.6	6.9	6.8
LnGrp Delay(d),s/veh	70.3	55.9	57.7	276.8	26.1	26.2	214.4	49.2	50.0	53.6	35.9	36.2
LnGrp LOS	E	E	E	F	C	C	F	D	D	D	D	D
Approach Vol, veh/h		1177			1363			1078			562	
Approach Delay, s/veh		58.1			104.3			86.3			37.3	
Approach LOS		E			F			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	7.2	35.3	21.6	40.5	10.2	32.2	12.7	49.3
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	4.0	32.9	17.1	36.0	5.7	31.2	9.5	43.6
Max Q Clear Time (g_c+I1), s	3.1	26.4	19.1	34.3	7.7	16.2	8.6	25.2
Green Ext Time (p_c), s	0.0	2.6	0.0	1.1	0.0	2.4	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	77.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	800	900	223	300	470	190	1749	153	310	1129	50
Future Volume (veh/h)	300	800	900	223	300	470	190	1749	153	310	1129	50
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		0.99	1.00		0.97	1.00		0.98	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	323	860	968	240	323	505	204	1881	165	333	1214	54
Adj No. of Lanes	1	2	1	1	2	1	2	3	0	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	1240	550	186	1219	531	1043	2448	214	252	1380	425
Arrive On Green	0.12	0.35	0.35	0.11	0.35	0.35	0.31	0.52	0.52	0.07	0.27	0.27
Sat Flow, veh/h	1757	3505	1555	1757	3505	1526	3408	4708	411	3408	5036	1551
Grp Volume(v), veh/h	323	860	968	240	323	505	204	1339	707	333	1214	54
Grp Sat Flow(s),veh/h/ln	1757	1752	1555	1757	1752	1526	1704	1679	1761	1704	1679	1551
Q Serve(g_s), s	15.4	27.3	46.0	13.8	8.6	41.9	5.7	41.4	41.9	9.6	30.0	3.5
Cycle Q Clear(g_c), s	15.4	27.3	46.0	13.8	8.6	41.9	5.7	41.4	41.9	9.6	30.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	208	1240	550	186	1219	531	1043	1746	916	252	1380	425
V/C Ratio(X)	1.55	0.69	1.76	1.29	0.27	0.95	0.20	0.77	0.77	1.32	0.88	0.13
Avail Cap(c_a), veh/h	208	1240	550	186	1219	531	1043	1746	916	252	1519	468
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	0.47	0.47	0.47	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	36.0	42.0	58.1	30.5	41.3	33.3	24.9	25.0	60.2	45.1	36.7
Incr Delay (d2), s/veh	270.7	1.4	349.3	163.3	0.0	27.1	0.0	1.6	3.0	170.4	8.3	0.6
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	23.1	13.4	73.1	15.1	4.2	21.6	2.7	19.5	21.0	10.5	15.0	1.6
LnGrp Delay(d),s/veh	328.0	37.4	391.3	221.4	30.5	68.5	33.3	26.5	28.1	230.6	53.4	37.3
LnGrp LOS	F	D	F	F	C	E	C	C	C	F	D	D
Approach Vol, veh/h		2151			1068			2250			1601	
Approach Delay, s/veh		240.3			91.4			27.6			89.7	
Approach LOS		F			F			C			F	

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	13.8	74.4	18.8	51.0	46.6	41.6	19.6	50.2
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 5	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 9.6	41.2	* 14	* 46	11.6	* 39	* 15	* 44
Max Q Clear Time (g_c+I1), s	11.6	43.9	15.8	48.0	7.7	32.0	17.4	43.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	3.6	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	116.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1011	290	0	891	1220	0	0	0	670	0	200
Future Volume (veh/h)	0	1011	290	0	891	1220	0	0	0	670	0	200
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	0	1845	1845				1845	0	1845
Adj Flow Rate, veh/h	0	1064	305	0	938	0				705	0	211
Adj No. of Lanes	0	3	0	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	3	3				3	0	3
Cap, veh/h	0	1461	419	0	1316	589				903	0	415
Arrive On Green	0.00	0.38	0.38	0.00	0.38	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	4056	1115	0	3597	1568				3408	0	1568
Grp Volume(v), veh/h	0	918	451	0	938	0				705	0	211
Grp Sat Flow(s),veh/h/ln	0	1679	1648	0	1752	1568				1704	0	1568
Q Serve(g_s), s	0.0	6.9	6.9	0.0	6.7	0.0				5.6	0.0	3.3
Cycle Q Clear(g_c), s	0.0	6.9	6.9	0.0	6.7	0.0				5.6	0.0	3.3
Prop In Lane	0.00		0.68	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1261	619	0	1316	589				903	0	415
V/C Ratio(X)	0.00	0.73	0.73	0.00	0.71	0.00				0.78	0.00	0.51
Avail Cap(c_a), veh/h	0	3450	1693	0	3601	1611				1693	0	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.8	7.8	0.0	7.8	0.0				9.9	0.0	9.1
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	0.3	0.0				0.6	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	0.0	3.2	0.0				2.6	0.0	1.4
LnGrp Delay(d),s/veh	0.0	8.1	8.5	0.0	8.0	0.0				10.5	0.0	9.5
LnGrp LOS		A	A		A					B		A
Approach Vol, veh/h		1369			938						916	
Approach Delay, s/veh		8.2			8.0						10.3	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.4		12.8		16.4		
Change Period (Y+Rc), s		5.4		5.1		5.4		
Max Green Setting (Gmax), s		30.0		14.5		30.0		
Max Q Clear Time (g_c+I1), s		8.9		7.6		8.7		
Green Ext Time (p_c), s		2.1		0.1		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1431	0	0	2011	1110	100	0	610	0	0	0
Future Volume (veh/h)	250	1431	0	0	2011	1110	100	0	610	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1460	0	0	2052	1133	102	0	622			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	275	3676	0	0	2729	1442	351	0	531			
Arrive On Green	0.16	0.73	0.00	0.00	0.36	0.36	0.20	0.00	0.20			
Sat Flow, veh/h	1757	5202	0	0	5202	2661	1757	0	2656			
Grp Volume(v), veh/h	255	1460	0	0	2052	1133	102	0	622			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1330	1757	0	1328			
Q Serve(g_s), s	21.5	16.5	0.0	0.0	53.5	56.9	7.4	0.0	30.0			
Cycle Q Clear(g_c), s	21.5	16.5	0.0	0.0	53.5	56.9	7.4	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	275	3676	0	0	2729	1442	351	0	531			
V/C Ratio(X)	0.93	0.40	0.00	0.00	0.75	0.79	0.29	0.00	1.17			
Avail Cap(c_a), veh/h	351	3676	0	0	2729	1442	351	0	531			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00			
Upstream Filter(I)	0.76	0.76	0.00	0.00	0.53	0.53	1.00	0.00	1.00			
Uniform Delay (d), s/veh	62.4	7.7	0.0	0.0	38.9	40.0	51.0	0.0	60.0			
Incr Delay (d2), s/veh	19.3	0.2	0.0	0.0	1.0	2.4	0.2	0.0	95.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.9	7.7	0.0	0.0	25.2	21.4	3.6	0.0	18.0			
LnGrp Delay(d),s/veh	81.7	7.9	0.0	0.0	40.0	42.4	51.1	0.0	155.6			
LnGrp LOS	F	A			D	D	D		F			
Approach Vol, veh/h		1715			3185			724				
Approach Delay, s/veh		18.9			40.8			140.9				
Approach LOS		B			D			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		114.9			28.2	86.7		35.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		109.5			* 30	74.8		30.0
Max Q Clear Time (g_c+I1), s		18.5			23.5	58.9		32.0
Green Ext Time (p_c), s		2.7			0.0	4.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1401	200	271	2371	351	250	140	221	291	150	310
Future Volume (veh/h)	300	1401	200	271	2371	351	250	140	221	291	150	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	312	1459	208	282	2470	366	260	146	230	303	156	323
Adj No. of Lanes	2	3	0	2	4	1	2	2	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	355	1611	229	600	2835	877	304	349	300	394	404	349
Arrive On Green	0.07	0.24	0.24	0.35	0.89	0.89	0.09	0.20	0.20	0.12	0.23	0.23
Sat Flow, veh/h	3408	4438	632	3408	6346	1557	3408	1752	1509	3408	1752	1514
Grp Volume(v), veh/h	312	1103	564	282	2470	366	260	146	230	303	156	323
Grp Sat Flow(s),veh/h/ln	1704	1679	1713	1704	1586	1557	1704	1752	1509	1704	1752	1514
Q Serve(g_s), s	13.6	47.8	47.9	9.6	28.1	1.7	11.3	10.9	21.6	12.9	11.3	31.3
Cycle Q Clear(g_c), s	13.6	47.8	47.9	9.6	28.1	1.7	11.3	10.9	21.6	12.9	11.3	31.3
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	1218	622	600	2835	877	304	349	300	394	404	349
V/C Ratio(X)	0.88	0.91	0.91	0.47	0.87	0.42	0.85	0.42	0.77	0.77	0.39	0.93
Avail Cap(c_a), veh/h	359	1298	662	600	2835	877	348	456	392	394	473	409
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.17	0.17	0.17	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	54.3	54.3	43.2	5.9	1.1	67.3	52.5	56.8	64.4	48.7	56.4
Incr Delay (d2), s/veh	17.0	9.3	16.2	0.0	0.7	0.2	15.1	0.3	4.5	8.2	0.2	23.2
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	7.3	23.8	25.6	4.5	11.1	0.7	5.9	5.3	9.4	6.5	5.5	15.3
LnGrp Delay(d),s/veh	85.8	63.5	70.5	43.2	6.6	1.3	82.5	52.8	61.3	72.6	49.0	79.6
LnGrp LOS	F	E	E	D	A	A	F	D	E	E	D	E
Approach Vol, veh/h		1979			3118			636			782	
Approach Delay, s/veh		69.0			9.3			68.0			70.8	
Approach LOS		E			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.4	60.4	17.6	39.6	19.8	73.0	22.3	34.9
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.0	* 4.2	6.0	5.0	* 5
Max Green Setting (Gmax), s	16.8	* 58	* 15	40.5	* 16	59.0	16.8	* 39
Max Q Clear Time (g_c+I1), s	11.6	49.9	13.3	33.3	15.6	30.1	14.9	23.6
Green Ext Time (p_c), s	0.3	4.5	0.1	1.3	0.0	19.2	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	1553	180	350	2473	181	400	70	290	261	90	260
Future Volume (veh/h)	230	1553	180	350	2473	181	400	70	290	261	90	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	240	1618	188	365	2576	189	417	245	188	272	94	271
Adj No. of Lanes	2	3	1	1	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	538	2014	793	349	2159	821	382	314	256	335	295	240
Arrive On Green	0.21	0.53	0.53	0.40	0.86	0.86	0.11	0.17	0.17	0.10	0.16	0.16
Sat Flow, veh/h	3408	5036	1556	1757	5036	1557	3514	1845	1502	3408	1845	1499
Grp Volume(v), veh/h	240	1618	188	365	2576	189	417	245	188	272	94	271
Grp Sat Flow(s),veh/h/ln	1704	1679	1556	1757	1679	1557	1757	1845	1502	1704	1845	1499
Q Serve(g_s), s	9.2	39.4	8.3	29.8	64.3	0.0	16.3	19.1	12.3	11.7	6.8	17.4
Cycle Q Clear(g_c), s	9.2	39.4	8.3	29.8	64.3	0.0	16.3	19.1	12.3	11.7	6.8	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	2014	793	349	2159	821	382	314	256	335	295	240
V/C Ratio(X)	0.45	0.80	0.24	1.05	1.19	0.23	1.09	0.78	0.73	0.81	0.32	1.13
Avail Cap(c_a), veh/h	538	2014	793	349	2159	821	382	508	414	341	492	400
HCM Platoon Ratio	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.54	0.54	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	30.3	15.7	45.2	10.7	4.3	66.8	59.5	28.0	66.3	55.8	33.1
Incr Delay (d2), s/veh	0.1	1.9	0.4	28.3	87.4	0.1	73.1	1.6	1.5	12.7	0.2	78.1
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	4.3	18.4	3.6	17.1	44.7	1.0	11.8	9.9	5.2	6.1	3.5	12.4
LnGrp Delay(d),s/veh	53.6	32.2	16.1	73.5	98.1	4.4	140.0	61.1	29.5	79.0	56.0	111.2
LnGrp LOS	D	C	B	F	F	A	F	E	C	E	E	F
Approach Vol, veh/h		2046			3130			850			637	
Approach Delay, s/veh		33.3			89.6			92.8			89.3	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	66.0	21.0	29.0	29.7	70.3	19.7	30.3
Change Period (Y+Rc), s	* 4.2	6.0	* 4.7	* 5	6.0	* 6	* 5	4.7
Max Green Setting (Gmax), s	* 30	44.0	* 16	* 40	9.5	* 64	* 15	41.3
Max Q Clear Time (g_c+I1), s	31.8	41.4	18.3	19.4	11.2	66.3	13.7	21.1
Green Ext Time (p_c), s	0.0	1.8	0.0	0.8	0.0	0.0	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	72.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2214	150	130	2854	90	180	50	100	220	60	240
Future Volume (veh/h)	90	2214	150	130	2854	90	180	50	100	220	60	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.96	1.00		0.96
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	96	2355	160	138	3036	96	191	53	106	234	64	255
Adj No. of Lanes	1	3	1	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	2327	850	195	2771	87	150	83	166	211	361	295
Arrive On Green	0.02	0.31	0.31	0.22	1.00	1.00	0.09	0.16	0.16	0.12	0.20	0.20
Sat Flow, veh/h	1757	5036	1551	1757	5011	156	1757	533	1065	1757	1845	1508
Grp Volume(v), veh/h	96	2355	160	138	2021	1111	191	0	159	234	64	255
Grp Sat Flow(s),veh/h/ln	1757	1679	1551	1757	1679	1810	1757	0	1598	1757	1845	1508
Q Serve(g_s), s	4.0	69.3	5.0	10.9	0.0	76.6	12.8	0.0	14.0	18.0	4.3	24.5
Cycle Q Clear(g_c), s	4.0	69.3	5.0	10.9	0.0	76.6	12.8	0.0	14.0	18.0	4.3	24.5
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	47	2327	850	195	1856	1001	150	0	249	211	361	295
V/C Ratio(X)	2.05	1.01	0.19	0.71	1.09	1.11	1.27	0.00	0.64	1.11	0.18	0.86
Avail Cap(c_a), veh/h	47	2327	850	195	1856	1001	150	0	362	211	480	392
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.7	51.8	8.5	56.1	0.0	0.0	68.6	0.0	59.4	66.0	50.3	58.4
Incr Delay (d2), s/veh	501.4	15.1	0.2	0.9	41.1	50.9	165.0	0.0	1.0	94.6	0.1	11.6
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	8.5	35.4	2.2	5.3	10.6	14.2	13.1	0.0	6.3	14.3	2.2	11.2
LnGrp Delay(d),s/veh	575.1	66.9	8.7	57.1	41.1	50.9	233.6	0.0	60.4	160.6	50.3	70.0
LnGrp LOS	F	F	A	E	F	F	F		E	F	D	E
Approach Vol, veh/h		2611			3270			350			553	
Approach Delay, s/veh		82.0			45.1			154.9			106.0	
Approach LOS		F			D			F			F	

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	22.6	75.3	17.0	35.1	9.0	88.9	23.0	29.1
Change Period (Y+Rc), s	6.0	* 6	* 4.2	5.7	5.0	6.0	5.0	* 5.7
Max Green Setting (Gmax), s	8.8	* 69	* 13	39.0	4.0	73.3	18.0	* 34
Max Q Clear Time (g_c+I1), s	12.9	71.3	14.8	26.5	6.0	78.6	20.0	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	70.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	1504	330	311	1894	112	220	290	181	52	500	630
Future Volume (veh/h)	200	1504	330	311	1894	112	220	290	181	52	500	630
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	225	1690	371	349	2128	126	247	326	203	58	562	708
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	389	1989	619	401	1937	598	223	1082	479	74	504	603
Arrive On Green	0.23	0.79	0.79	0.12	0.38	0.38	0.07	0.31	0.31	0.04	0.27	0.27
Sat Flow, veh/h	3408	5036	1568	3408	5036	1556	3408	3505	1553	1757	1845	1551
Grp Volume(v), veh/h	225	1690	371	349	2128	126	247	326	203	58	562	708
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1556	1704	1752	1553	1757	1845	1551
Q Serve(g_s), s	8.8	32.2	10.7	15.1	57.7	6.7	9.8	10.6	15.6	4.9	41.0	41.0
Cycle Q Clear(g_c), s	8.8	32.2	10.7	15.1	57.7	6.7	9.8	10.6	15.6	4.9	41.0	41.0
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	389	1989	619	401	1937	598	223	1082	479	74	504	603
V/C Ratio(X)	0.58	0.85	0.60	0.87	1.10	0.21	1.11	0.30	0.42	0.79	1.11	1.17
Avail Cap(c_a), veh/h	466	1989	619	920	1937	598	223	1082	479	85	504	603
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	12.9	6.3	65.0	46.2	20.7	70.1	39.5	41.2	71.2	54.5	45.9
Incr Delay (d2), s/veh	0.2	1.9	1.7	2.3	53.0	0.8	92.7	0.1	0.2	28.4	75.3	95.3
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	4.1	14.4	4.6	7.3	36.2	3.0	7.5	5.2	6.7	3.0	31.4	33.4
LnGrp Delay(d),s/veh	54.9	14.8	8.0	67.3	99.2	21.5	162.8	39.6	41.5	99.6	129.8	141.2
LnGrp LOS	D	B	A	E	F	C	F	D	D	F	F	F
Approach Vol, veh/h		2286			2603			776			1328	
Approach Delay, s/veh		17.7			91.1			79.3			134.6	
Approach LOS		B			F			E			F	

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	21.9	65.5	15.6	47.0	23.4	64.0	10.5	52.1
Change Period (Y+Rc), s	* 4.2	* 6.3	* 5.8	* 6	* 6.3	* 6.3	* 4.2	5.8
Max Green Setting (Gmax), s	* 41	* 38	* 9.8	* 41	* 21	* 58	* 7.3	43.7
Max Q Clear Time (g_c+I1), s	17.1	34.2	11.8	43.0	10.8	59.7	6.9	17.6
Green Ext Time (p_c), s	0.6	2.7	0.0	0.0	0.3	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1824	290	60	1604	60	420	50	200	430	150	233
Future Volume (veh/h)	63	1824	290	60	1604	60	420	50	200	430	150	233
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	68	1983	315	65	1743	65	457	54	217	467	163	253
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	106	1778	277	61	1824	68	503	64	259	377	514	424
Arrive On Green	0.06	0.41	0.41	0.03	0.37	0.37	0.15	0.21	0.21	0.21	0.28	0.28
Sat Flow, veh/h	1757	4369	679	1757	4974	185	3408	312	1255	1757	1845	1520
Grp Volume(v), veh/h	68	1514	784	65	1176	632	457	0	271	467	163	253
Grp Sat Flow(s),veh/h/ln	1757	1679	1691	1757	1679	1802	1704	0	1567	1757	1845	1520
Q Serve(g_s), s	5.7	61.1	61.1	5.2	51.2	51.3	19.8	0.0	24.9	32.2	10.5	17.5
Cycle Q Clear(g_c), s	5.7	61.1	61.1	5.2	51.2	51.3	19.8	0.0	24.9	32.2	10.5	17.5
Prop In Lane	1.00		0.40	1.00		0.10	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	106	1367	688	61	1231	661	503	0	323	377	514	424
V/C Ratio(X)	0.64	1.11	1.14	1.07	0.96	0.96	0.91	0.00	0.84	1.24	0.32	0.60
Avail Cap(c_a), veh/h	106	1367	688	61	1247	669	563	0	387	377	546	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.9	44.5	44.5	72.4	46.3	46.3	62.9	0.0	57.1	58.9	42.8	30.8
Incr Delay (d2), s/veh	9.6	59.5	79.5	135.2	17.0	25.9	16.5	0.0	11.3	128.0	0.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	39.6	43.7	4.8	26.6	30.2	10.5	0.0	11.8	29.0	5.4	7.5
LnGrp Delay(d),s/veh	78.5	104.0	123.9	209.5	63.3	72.2	79.5	0.0	68.4	186.9	42.9	32.0
LnGrp LOS	E	F	F	F	E	E	E		E	F	D	C
Approach Vol, veh/h		2366			1873			728			883	
Approach Delay, s/veh		109.9			71.4			75.4			115.9	
Approach LOS		F			E			E			F	

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	9.4	67.5	26.3	46.8	15.5	61.4	37.2	35.9
Change Period (Y+Rc), s	* 4.2	* 6.4	* 4.2	* 5	* 6.4	* 6.4	* 5	* 5
Max Green Setting (Gmax), s	* 5.2	* 56	* 25	* 44	* 5.3	* 56	* 32	* 37
Max Q Clear Time (g_c+I1), s	7.2	63.1	21.8	19.5	7.7	53.3	34.2	26.9
Green Ext Time (p_c), s	0.0	0.0	0.3	1.0	0.0	1.7	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	94.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	2010	80	130	1510	115	170	35	330	145	35	84
Future Volume (veh/h)	64	2010	80	130	1510	115	170	35	330	145	35	84
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	0.99		0.97
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	71	2233	89	144	1678	128	189	39	367	161	39	93
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	2425	96	219	2738	209	329	505	416	203	43	97
Arrive On Green	0.05	0.49	0.49	0.12	0.57	0.57	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1757	4962	197	1757	4766	363	1240	1845	1520	607	158	356
Grp Volume(v), veh/h	71	1507	815	144	1181	625	189	39	367	293	0	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1801	1757	1679	1771	1240	1845	1520	1121	0	0
Q Serve(g_s), s	6.0	62.4	63.4	11.7	34.6	34.8	0.0	2.4	34.7	36.4	0.0	0.0
Cycle Q Clear(g_c), s	6.0	62.4	63.4	11.7	34.6	34.8	25.0	2.4	34.7	38.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.20	1.00		1.00	0.55		0.32
Lane Grp Cap(c), veh/h	90	1641	880	219	1929	1018	329	505	416	344	0	0
V/C Ratio(X)	0.79	0.92	0.93	0.66	0.61	0.61	0.57	0.08	0.88	0.85	0.00	0.00
Avail Cap(c_a), veh/h	712	1746	936	219	1929	1018	346	530	437	360	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.4	35.6	35.8	62.6	20.9	21.0	48.6	40.4	52.2	54.5	0.0	0.0
Incr Delay (d2), s/veh	5.8	9.7	16.9	5.6	1.5	2.8	1.2	0.0	17.3	16.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	31.1	35.6	6.0	16.5	17.8	7.1	1.2	16.6	13.5	0.0	0.0
LnGrp Delay(d),s/veh	76.2	45.3	52.7	68.2	22.4	23.7	49.8	40.4	69.4	70.4	0.0	0.0
LnGrp LOS	E	D	D	E	C	C	D	D	E	E		
Approach Vol, veh/h		2393			1950			595			293	
Approach Delay, s/veh		48.7			26.2			61.3			70.4	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	24.7	79.3		46.0	11.9	92.2		46.0
Change Period (Y+Rc), s	6.0	* 6		4.9	* 4.2	6.0		4.9
Max Green Setting (Gmax), s	13.8	* 78		43.1	* 61	31.0		43.1
Max Q Clear Time (g_c+I1), s	13.7	65.4		36.7	8.0	36.8		40.7
Green Ext Time (p_c), s	0.0	7.9		0.8	0.1	0.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	432	1791	252	580	1161	590	392	1130	660	760	1060	262
Future Volume (veh/h)	432	1791	252	580	1161	590	392	1130	660	760	1060	262
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	460	1905	268	617	1235	628	417	1202	702	809	1128	279
Adj No. of Lanes	2	3	1	2	3	2	2	3	2	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	507	1343	413	386	1165	630	409	1369	1063	641	1712	762
Arrive On Green	0.15	0.27	0.27	0.04	0.08	0.08	0.12	0.27	0.27	0.19	0.34	0.34
Sat Flow, veh/h	3408	5036	1550	3408	5036	2724	3408	5036	2760	3408	5036	1554
Grp Volume(v), veh/h	460	1905	268	617	1235	628	417	1202	702	809	1128	279
Grp Sat Flow(s),veh/h/ln	1704	1679	1550	1704	1679	1362	1704	1679	1380	1704	1679	1554
Q Serve(g_s), s	19.9	40.0	16.7	17.0	34.7	22.5	18.0	34.2	14.5	28.2	28.6	16.8
Cycle Q Clear(g_c), s	19.9	40.0	16.7	17.0	34.7	22.5	18.0	34.2	14.5	28.2	28.6	16.8
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	507	1343	413	386	1165	630	409	1369	1063	641	1712	762
V/C Ratio(X)	0.91	1.42	0.65	1.60	1.06	1.00	1.02	0.88	0.66	1.26	0.66	0.37
Avail Cap(c_a), veh/h	591	1343	413	386	1165	630	409	1511	1141	641	1712	762
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.27	0.27	0.27	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	62.8	55.0	25.8	72.2	69.3	29.4	66.0	52.2	38.0	60.9	42.1	23.9
Incr Delay (d2), s/veh	15.1	192.8	2.8	272.1	33.1	17.8	49.6	8.2	3.2	119.0	0.2	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	10.5	42.5	7.5	22.6	19.7	10.1	11.3	17.0	6.0	23.9	13.3	7.2
LnGrp Delay(d),s/veh	78.0	247.8	28.6	344.3	102.4	47.1	115.6	60.5	41.2	179.9	42.3	24.0
LnGrp LOS	E	F	C	F	F	D	F	E	D	F	D	C
Approach Vol, veh/h		2633			2480			2321			2216	
Approach Delay, s/veh		195.8			148.6			64.5			90.2	
Approach LOS		F			F			E			F	

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	23.0	46.0	24.0	57.0	28.3	40.7	34.2	46.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	40.0	18.0	51.0	26.0	31.0	24.0	45.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	20.0	30.6	21.9	36.7	30.2	36.2
Green Ext Time (p_c), s	0.0	0.0	0.0	6.4	0.4	0.0	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	127.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2820	321	130	1810	70	261	50	300	130	70	370
Future Volume (veh/h)	140	2820	321	130	1810	70	261	50	300	130	70	370
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		0.97	1.00		0.97
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	1845	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	146	2938	334	135	1885	73	272	52	312	135	73	385
Adj No. of Lanes	1	3	1	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	2595	881	744	4249	164	115	453	372	141	480	395
Arrive On Green	0.06	0.35	0.35	0.85	1.00	1.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1757	5036	1511	1757	4974	192	1757	1845	1516	1757	1845	1518
Grp Volume(v), veh/h	146	2938	334	135	1271	687	272	52	312	135	73	385
Grp Sat Flow(s),veh/h/ln	1757	1679	1511	1757	1679	1809	1757	1845	1516	1757	1845	1518
Q Serve(g_s), s	12.3	77.3	31.2	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Cycle Q Clear(g_c), s	12.3	77.3	31.2	2.1	0.0	0.0	9.8	3.3	25.8	11.5	4.6	37.7
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	2595	881	744	2868	1546	115	453	372	141	480	395
V/C Ratio(X)	0.86	1.13	0.38	0.18	0.44	0.44	2.37	0.11	0.84	0.96	0.15	0.98
Avail Cap(c_a), veh/h	704	2595	881	744	2868	1546	115	453	372	141	480	395
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	49.1	65.7	6.8	0.0	0.0	70.1	44.0	41.5	68.8	42.8	55.0
Incr Delay (d2), s/veh	0.5	60.0	0.1	0.0	0.2	0.4	642.4	0.0	14.7	63.3	0.1	38.5
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	6.0	50.3	13.1	1.0	0.1	0.2	25.2	1.7	12.3	8.1	2.3	20.0
LnGrp Delay(d),s/veh	69.6	109.1	65.8	6.8	0.2	0.4	712.5	44.0	56.3	132.1	42.8	93.5
LnGrp LOS	E	F	E	A	A	A	F	D	E	F	D	F
Approach Vol, veh/h		3418			2093			636			593	
Approach Delay, s/veh		103.2			0.7			335.9			96.1	
Approach LOS		F			A			F			F	

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	70.6	83.3	14.0	43.7	18.7	135.2	16.2	41.5
Change Period (Y+Rc), s	6.0	* 6	* 4.2	* 4.7	* 4.2	6.0	* 4.2	* 4.7
Max Green Setting (Gmax), s	4.8	* 77	* 9.8	* 39	* 60	22.0	* 12	* 37
Max Q Clear Time (g_c+I1), s	4.1	79.3	11.8	39.7	14.3	2.0	13.5	27.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	8.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	92.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	2618	251	530	1658	100	201	210	410	310	170	91
Future Volume (veh/h)	131	2618	251	530	1658	100	201	210	410	310	170	91
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.99
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	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	135	2699	259	546	1709	103	207	216	423	320	175	94
Adj No. of Lanes	2	3	1	2	3	0	2	2	0	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	449	1903	588	609	2002	121	232	397	343	279	550	281
Arrive On Green	0.18	0.50	0.50	0.06	0.14	0.14	0.07	0.23	0.23	0.08	0.25	0.25
Sat Flow, veh/h	3408	5036	1556	3408	4850	292	3408	1752	1514	3408	2236	1143
Grp Volume(v), veh/h	135	2699	259	546	1182	630	207	216	423	320	135	134
Grp Sat Flow(s),veh/h/ln	1704	1679	1556	1704	1679	1785	1704	1752	1514	1704	1752	1626
Q Serve(g_s), s	5.2	56.7	16.0	23.9	51.6	51.7	9.0	16.3	34.0	12.3	9.5	10.1
Cycle Q Clear(g_c), s	5.2	56.7	16.0	23.9	51.6	51.7	9.0	16.3	34.0	12.3	9.5	10.1
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	449	1903	588	609	1386	737	232	397	343	279	431	400
V/C Ratio(X)	0.30	1.42	0.44	0.90	0.85	0.85	0.89	0.54	1.23	1.15	0.31	0.33
Avail Cap(c_a), veh/h	449	1903	588	1370	1775	943	232	397	343	279	431	400
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	37.3	27.2	69.2	60.3	60.4	69.4	51.2	58.0	68.8	46.2	46.5
Incr Delay (d2), s/veh	0.0	188.7	0.3	0.8	3.0	5.4	31.5	0.9	127.6	98.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	59.4	6.9	11.4	24.6	26.7	5.3	8.0	26.4	9.6	4.6	4.6
LnGrp Delay(d),s/veh	55.9	226.1	27.5	70.0	63.3	65.8	100.9	52.0	185.6	167.7	46.4	46.6
LnGrp LOS	E	F	C	E	E	E	F	D	F	F	D	D
Approach Vol, veh/h		3093			2358			846			589	
Approach Delay, s/veh		202.0			65.5			130.7			112.3	
Approach LOS		F			E			F			F	

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	31.0	62.7	14.4	41.9	25.8	67.9	17.3	39.0
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.0	6.0	* 6	5.0	* 5
Max Green Setting (Gmax), s	* 60	24.0	* 10	36.1	5.0	* 79	12.3	* 34
Max Q Clear Time (g_c+I1), s	25.9	58.7	11.0	12.1	7.2	53.7	14.3	36.0
Green Ext Time (p_c), s	0.9	0.0	0.0	0.9	0.0	8.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	138.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1181	2156	551	270	1046	90	261	790	290	210	1150	821
Future Volume (veh/h)	1181	2156	551	270	1046	90	261	790	290	210	1150	821
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		0.99	1.00		0.99
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	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	1256	2294	586	287	1113	96	278	840	309	223	1223	873
Adj No. of Lanes	2	3	1	2	3	1	2	4	1	2	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1100	3141	973	291	1886	582	186	1599	524	209	872	1568
Arrive On Green	0.32	0.62	0.62	0.09	0.37	0.37	0.05	0.25	0.25	0.06	0.25	0.25
Sat Flow, veh/h	3408	5036	1560	3408	5036	1555	3408	6346	1549	3408	3505	2726
Grp Volume(v), veh/h	1256	2294	586	287	1113	96	278	840	309	223	1223	873
Grp Sat Flow(s),veh/h/ln	1704	1679	1560	1704	1679	1555	1704	1586	1549	1704	1752	1363
Q Serve(g_s), s	48.4	47.2	36.1	12.6	26.6	6.5	8.2	17.1	24.8	9.2	37.3	0.0
Cycle Q Clear(g_c), s	48.4	47.2	36.1	12.6	26.6	6.5	8.2	17.1	24.8	9.2	37.3	0.0
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	1100	3141	973	291	1886	582	186	1599	524	209	872	1568
V/C Ratio(X)	1.14	0.73	0.60	0.99	0.59	0.16	1.49	0.53	0.59	1.07	1.40	0.56
Avail Cap(c_a), veh/h	1100	3141	973	291	1886	582	186	1599	524	209	872	1568
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	19.5	19.2	68.5	37.7	34.3	70.9	48.4	41.1	70.4	56.3	20.2
Incr Delay (d2), s/veh	65.1	0.1	0.3	48.9	0.3	0.0	247.6	0.2	1.2	81.1	188.4	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	32.7	21.7	15.5	7.9	12.4	2.8	10.3	7.5	10.8	6.7	40.8	11.3
LnGrp Delay(d),s/veh	115.9	19.6	19.5	117.4	38.0	34.3	318.5	48.5	42.3	151.5	244.7	20.4
LnGrp LOS	F	B	B	F	D	C	F	D	D	F	F	C
Approach Vol, veh/h		4136			1496			1427			2319	
Approach Delay, s/veh		48.8			53.0			99.8			151.3	
Approach LOS		D			D			F			F	

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	17.0	99.6	14.2	43.0	54.4	62.2	13.4	43.8
Change Period (Y+Rc), s	* 4.2	6.0	6.0	* 5.7	6.0	* 6	* 4.2	6.0
Max Green Setting (Gmax), s	* 13	71.6	8.2	* 37	48.4	* 36	* 9.2	36.0
Max Q Clear Time (g_c+I1), s	14.6	49.2	10.2	39.3	50.4	28.6	11.2	26.8
Green Ext Time (p_c), s	0.0	13.6	0.0	0.0	0.0	2.9	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	82.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	140	320	50	190	80	1432	210	280	1812	60
Future Volume (veh/h)	190	30	140	320	50	190	80	1432	210	280	1812	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	196	31	144	330	52	196	82	1476	216	289	1868	62
Adj No. of Lanes	0	1	1	1	1	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	40	246	378	71	267	70	1188	362	428	2287	707
Arrive On Green	0.16	0.16	0.16	0.22	0.22	0.22	0.04	0.24	0.24	0.24	0.45	0.45
Sat Flow, veh/h	1527	241	1500	1757	329	1242	1757	5036	1535	1757	5036	1558
Grp Volume(v), veh/h	227	0	144	330	0	248	82	1476	216	289	1868	62
Grp Sat Flow(s),veh/h/ln	1768	0	1500	1757	0	1571	1757	1679	1535	1757	1679	1558
Q Serve(g_s), s	18.5	0.0	13.3	27.2	0.0	22.1	6.0	35.4	18.8	22.3	48.3	3.4
Cycle Q Clear(g_c), s	18.5	0.0	13.3	27.2	0.0	22.1	6.0	35.4	18.8	22.3	48.3	3.4
Prop In Lane	0.86		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	0	246	378	0	338	70	1188	362	428	2287	707
V/C Ratio(X)	0.78	0.00	0.59	0.87	0.00	0.73	1.17	1.24	0.60	0.68	0.82	0.09
Avail Cap(c_a), veh/h	448	0	380	468	0	419	70	1188	362	428	2287	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	0.0	58.0	56.9	0.0	54.8	72.0	57.3	50.9	51.4	35.5	23.3
Incr Delay (d2), s/veh	2.0	0.0	0.8	12.2	0.0	3.5	159.4	116.2	7.1	3.5	3.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	5.6	14.5	0.0	9.9	6.0	29.2	8.7	11.2	23.0	1.5
LnGrp Delay(d),s/veh	62.2	0.0	58.8	69.1	0.0	58.4	231.5	173.5	58.0	54.8	38.9	23.5
LnGrp LOS	E		E	E		E	F	F	E	D	D	C
Approach Vol, veh/h		371			578			1774			2219	
Approach Delay, s/veh		60.9			64.5			162.1			40.6	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.9	41.8		28.8	10.2	74.5		36.5
Change Period (Y+Rc), s	* 6.4	* 6.4		* 4.2	* 4.2	* 6.4		4.2
Max Green Setting (Gmax), s	* 18	* 35		* 38	* 6	* 47		40.0
Max Q Clear Time (g_c+I1), s	24.3	37.4		20.5	8.0	50.3		29.2
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	0.0		1.3

Intersection Summary		
HCM 2010 Ctrl Delay		88.5
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	20	515	20	20	20	195	1472	20	40	1902	110
Future Volume (veh/h)	310	20	515	20	20	20	195	1472	20	40	1902	110
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		0.97	1.00		0.93	1.00		0.99	1.00		0.98
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	1845	1845	1845	1900	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	220	0	652	21	21	21	201	1518	21	41	1961	113
Adj No. of Lanes	1	0	2	0	1	0	2	2	1	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	417	0	719	50	50	50	118	1772	785	47	2421	139
Arrive On Green	0.24	0.00	0.24	0.09	0.09	0.09	0.03	0.51	0.51	0.03	0.50	0.50
Sat Flow, veh/h	1757	0	3031	557	557	557	3408	3505	1552	1757	4866	279
Grp Volume(v), veh/h	220	0	652	63	0	0	201	1518	21	41	1351	723
Grp Sat Flow(s),veh/h/ln	1757	0	1515	1670	0	0	1704	1752	1552	1757	1679	1788
Q Serve(g_s), s	16.4	0.0	31.4	5.4	0.0	0.0	5.2	56.7	1.0	3.5	50.7	51.2
Cycle Q Clear(g_c), s	16.4	0.0	31.4	5.4	0.0	0.0	5.2	56.7	1.0	3.5	50.7	51.2
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	417	0	719	149	0	0	118	1772	785	47	1670	889
V/C Ratio(X)	0.53	0.00	0.91	0.42	0.00	0.00	1.70	0.86	0.03	0.88	0.81	0.81
Avail Cap(c_a), veh/h	445	0	768	445	0	0	118	1772	785	47	1670	889
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	55.6	64.6	0.0	0.0	72.4	32.4	18.6	72.8	31.7	31.8
Incr Delay (d2), s/veh	1.0	0.0	14.0	1.9	0.0	0.0	349.0	5.6	0.1	85.7	4.3	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	14.6	2.5	0.0	0.0	8.2	28.8	0.5	2.8	24.5	27.1
LnGrp Delay(d),s/veh	50.9	0.0	69.6	66.5	0.0	0.0	421.4	38.0	18.7	158.5	36.0	39.8
LnGrp LOS	D		E	E			F	D	B	F	D	D
Approach Vol, veh/h		872			63			1740			2115	
Approach Delay, s/veh		64.9			66.5			82.0			39.7	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	81.8		40.6	11.2	80.6		17.6
Change Period (Y+Rc), s	6.0	6.0		* 5	6.0	6.0		4.2
Max Green Setting (Gmax), s	4.0	46.8		* 38	5.2	45.6		40.0
Max Q Clear Time (g_c+I1), s	5.5	58.7		33.4	7.2	53.2		7.4
Green Ext Time (p_c), s	0.0	0.0		1.6	0.0	0.0		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		60.0
HCM 2010 LOS		E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	30	30	320	70	141	50	1486	540	251	2186	50
Future Volume (veh/h)	30	30	30	320	70	141	50	1486	540	251	2186	50
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		0.94	1.00		0.96	1.00		0.99	1.00		0.98
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	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	32	32	32	344	75	152	54	1598	581	270	2351	54
Adj No. of Lanes	2	2	0	2	2	0	2	3	1	2	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	67	205	171	388	375	323	584	2745	850	314	2298	53
Arrive On Green	0.02	0.12	0.12	0.11	0.21	0.21	0.17	0.55	0.55	0.09	0.45	0.45
Sat Flow, veh/h	3408	1768	1468	3408	1752	1512	3408	5036	1559	3408	5062	116
Grp Volume(v), veh/h	32	32	32	344	75	152	54	1598	581	270	1556	849
Grp Sat Flow(s),veh/h/ln	1704	1752	1484	1704	1752	1512	1704	1679	1559	1704	1679	1821
Q Serve(g_s), s	1.4	2.4	3.0	14.9	5.3	13.2	2.0	31.7	23.8	11.7	68.1	68.1
Cycle Q Clear(g_c), s	1.4	2.4	3.0	14.9	5.3	13.2	2.0	31.7	23.8	11.7	68.1	68.1
Prop In Lane	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	67	204	172	388	375	323	584	2745	850	314	1524	827
V/C Ratio(X)	0.48	0.16	0.19	0.89	0.20	0.47	0.09	0.58	0.68	0.86	1.02	1.03
Avail Cap(c_a), veh/h	91	456	386	427	625	539	584	2745	850	357	1524	827
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	72.8	59.7	59.9	65.5	48.4	51.6	52.3	22.7	8.6	67.1	41.0	41.0
Incr Delay (d2), s/veh	2.0	0.1	0.2	17.4	0.1	0.4	0.1	0.9	4.4	15.5	28.5	38.3
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	1.2	1.2	8.0	2.6	5.6	1.0	14.9	11.2	6.2	37.6	43.0
LnGrp Delay(d),s/veh	74.7	59.8	60.1	82.9	48.5	51.9	52.5	23.6	13.0	82.6	69.5	79.2
LnGrp LOS	E	E	E	F	D	D	D	C	B	F	F	F
Approach Vol, veh/h		96			571			2233			2675	
Approach Delay, s/veh		64.9			70.1			21.6			73.9	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	87.8	22.1	22.1	31.7	74.1	7.1	37.1
Change Period (Y+Rc), s	* 4.2	6.0	* 5	* 4.7	6.0	* 6	* 4.2	* 5
Max Green Setting (Gmax), s	* 16	57.4	* 19	* 39	5.0	* 68	* 4	* 54
Max Q Clear Time (g_c+I1), s	13.7	33.7	16.9	5.0	4.0	70.1	3.4	15.2
Green Ext Time (p_c), s	0.1	21.3	0.2	0.2	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

Notes

APPENDIX G

MITIGATION MEASURE PHASING INFORMATION

Phasing / Impact Calculations

Total Project (PAL2) ADT = 4,206 **Total Project (PAL2) Enplanements = 1575 enplanements**

Impacted Intersection	Horizon Year without Project		Horizon Year + Project (PAL2)		Delta	LOS D or *2.0 sec.* threshold	Allowable increase in delay before impact	Project ADT before impact	% of project that can be built before impact occurs	# of daily enplanements before impact
	Delay	LOS	Delay	LOS						
11. Palomar Airport Road / Camino Vida Roble	92.9	F	95.4	F	2.5	*94.9*	2.0	3,365	80%	**1,260**
13. Palomar Airport Road / El Camino Real	126.2	F	130.9	F	4.7	*128.2*	2.0	1,790	43%	**670**

APPENDIX H

FAIR SHARE CALCULATIONS

McClellan-Palomar Airport Master Plan
FAIR SHARE CALCULATIONS
August 2017

FAIR SHARE FORMULA:

$$\frac{\text{Project Traffic Volumes}}{\text{Horizon Year Traffic Volumes} - \text{Existing Traffic Volumes}}$$

FAIR SHARE CALCULATIONS:

a) Palomar Airport Road / Camino Vida Roble

$$\frac{\text{99 PM peak hour entering volume}}{5{,}429 - 4{,}507} = 10.7\%$$

b) Palomar Airport Road / El Camino Real

$$\frac{\text{134 PM peak hour entering volume}}{9{,}134 - 7{,}344} = 7.5\%$$

Supplement to
PEIR Appendix E

Correspondence with Caltrans
and County of San Diego

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DEPARTMENT OF TRANSPORTATION
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May 16, 2018

11–SD-5
PM R47.03
McClellan-Palomar Airport Master Plan Update DEIR
SCH#2016021105

Ms. Cynthia Curtis
County of San Diego, Department of Public works
5510 Overland Avenue, Suite 410
San Diego, CA 92123

Dear Ms. Cynthia Curtis:

Thank you for the letter dated May 1, 2018 following the meetings between Caltrans and the County of San Diego on April 16th and April 19th , 2018 regarding the McClellan-Palomar Airport Master Plan Update.

Based on the information provided in the letter, the previous comments from Caltrans are no longer applicable and we concur with the traffic analysis. We have no futher comments.

If you have any questions, please contact Kimberly Dodson, of the Caltrans Development Review Branch, at (619) 688-2510 or by e-mail sent to Kimberly.dodson@dot.ca.gov.

Sincerely,

JACOB ARMSTRONG, Branch Chief
Local Development and Intergovernmental Review Branch

County of San Diego

RICHARD E. CROMPTON
DIRECTOR

DEPARTMENT OF PUBLIC WORKS
COUNTY AIRPORTS
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May 1, 2018

Mr. Jacob Armstrong, Branch Chief
CALTRANS
4050 Taylor Street
San Diego, CA 92110

MCCLELLAN-PALOMAR AIRPORT MASTER PLAN TRAFFIC STUDY

Dear Mr. Armstrong:

Thank you for having your staff meet with the County of San Diego Department of Public Works (County) team on April 16th and 19, 2018 regarding Caltrans' comment letter dated March 15, 2018 submitted during the CEQA public review period for the McClellan-Palomar Airport Master Plan Draft Program EIR Traffic Study dated December 7, 2017. The two items raised in the Caltrans letter discussed with your staff were: 1) peak hour methodology for the traffic counts at the Palomar Airport Road/I-5 northbound ramps intersection; and 2) intersection Synchro analysis at this location.

Peak Hour Methodology

Caltrans commented that the peak hour traffic volumes analyzed in the traffic study varied from the Caltrans published volumes. Selection of the peak hour in the analysis was consistent with City of Carlsbad & San Diego Traffic Engineers' Council (SANTEC) methodology, and with the "common rules" as set forth in Attachment A, Caltrans' December 2002 published guidance: Caltrans Guide for the Preparation of Traffic Impact Studies. The traffic study methodology follows the Caltrans guidelines. Traffic counts were conducted and collected on the City of Carlsbad's transportation network as part of the City's annual Traffic Monitoring Program (TMP), which provided 2016 traffic data. In discussions with the City of Carlsbad regarding this project's traffic study methodology, County staff confirmed that existing weekday AM and PM peak hour (7:00-9:00 AM and 4:00-6:00PM) traffic volumes should be used from the TMP, and are most relevant to the project impact area. The City of Carlsbad uses SANTEC criteria for peak hour analysis. In accordance with this regional approach to peak hour analysis, this approach yields the most useful information for how traffic performs across jurisdictions. In the airport master plan project's traffic study, use of SANTEC guidance provides consistency in analyzing the traffic flow from the I-5 interchange onto Carlsbad's segments and intersections. Consistency of peak hour timeframes is important to identify where delays occur regardless of roadway ownership.

Caltrans' published traffic counts demonstrate peak hour times of 11:00AM – 12:00PM and 1:00PM – 2:00PM for the I-5 mainline and northbound off ramp; whereas the airport master plan traffic study used the City's peak hours on Palomar Airport Road, which is within the City's jurisdiction. As clarified at the April 16 and 19 meetings, the reason the counts were different is the peak hours were different. Specifically, the traffic study counts represented the highest hours between 7-9 AM (AM peak hour) and 4-6 PM (PM peak hour) while the Caltrans peak hour volumes occur between 11AM-12 PM and 1-2 PM. It therefore it is reasonable that the counts would not be consistent with each other. According to the City's TMP data (Final Report 2016; Appendix A– Mid-block Roadway Segment Summary) Palomar Airport Road, which directly receives the northbound I-5 off ramp traffic, lists 5-6PM as the highest traffic counts during the day. Comparison of Caltrans peak hour to the project's peak hour analysis are not equivalent since each agency applied different peak hour timeframes based on the roadways within their jurisdiction. The City's peak hour analysis, particularly in the 5-6PM timeframe, is most relevant to this project, as it demonstrates the movement of traffic from all directions from the I-5 facility onto the City's roadways and towards the airport. As stated in the airport master plan project's study and on PEIR Table 2.5-3 Existing + Project Street Segment Operations, during peak hours all street segments and intersections are calculated to operate at acceptable LOS at locations adjacent to the I-5/Palomar Airport Road interchange.

In consideration of Caltrans' comment regarding the airport master plan project's traffic impact at these alternate peak hour timeframes, County staff agreed at the April 19 meeting to augment our CEQA analysis by also looking at the same traffic volumes in the 11AM-12PM and 1-2PM time frames. County staff asked our traffic consultant, LLG Engineers, to study the Caltrans ramp data and City of Carlsbad 24-hour data on Palomar Airport Road to calculate existing turn volumes for the 11AM-12PM and 1-2 PM time frames. These existing volumes were then extrapolated (using the same methodology as the airport master plan project's traffic study) to estimate long term and project-related traffic volumes for these times frames. A Synchro analysis was performed for these scenarios and the results are shown attached to this letter (Table 1, Attachment A). At the Caltrans-designated peak hours (11AM-12PM and 1-2PM), the levels of service would not cause a significant impact to traffic at the Caltrans facility.

Intersection Synchro Analysis

The Caltrans public review comment letter also discusses the airport master plan project study's approach to analyzing the function of the Palomar Airport Road / I-5 northbound ramps intersection. As discussed at the April 16 and 19 meetings, the airport master plan traffic study's intersection analysis methodology is consistent with the common rules as set forth in the currently utilized Caltrans January 2001 published guidance: Caltrans Guide for the Preparation of Traffic Impact Studies, which does not require a "per leg" analysis. Similarly, SANTEC guidance, City of Carlsbad standards, and other major public and private traffic impact studies in the region are not conducted with a "per leg" analysis. Both Caltrans and County staff concurred at the April 16 and 19 meetings that the County's approach to the analysis of the intersection was valid and consistent with regional standards which require that significance is determined by assessing the function of the entire intersection and not based on the level of service for the individual legs ("per leg") of an intersection.

In consideration of Caltrans' comment, County staff agreed at the meeting to augment our CEQA analysis by also looking at the airport master plan project impacts on a per-leg basis incorporating optimized traffic signal phasing incorporating optimized traffic signal phasing in a manner consistent with how Caltrans times signals. County staff asked our traffic

consultant, LLG Engineers, to re-run the intersection's Synchro analysis with this approach. As an attachment to this letter, Table 2 shows the reanalysis results of the Palomar Airport Road/I-5 northbound ramps intersection during the AM and PM commuter peak hours on a per-leg basis and shows no significant impact would occur. The Synchro data sheets in Attachment B show LOS D or better operations at the off-ramp leg of the intersection. It was further discussed that Caltrans controls the signal timing and can adjust the timing to minimize backups onto I-5.

Thank you again for meeting with us to discuss and resolve the Caltrans public review comments. County staff implemented the recommendations from our April 16 and 19 meetings and conducted the additional analysis as discussed above. The data reconfirms that the project would not create a significant impact to Caltrans' facility. We would appreciate your review and concurrence of the information in this letter, and if you concur, then it would be extremely helpful to our airport master plan efforts if you would indicate your concurrence with your signature in the space below and by returning the signed letter to me or by providing a separate concurrence letter to my attention. Providing your concurrence within two weeks of this memo by May 15, 2018, will allow us to continue with our project schedule. Conversely, if you have any questions, please do not hesitate to contact me immediately to discuss.

The McClellan-Palomar Airport Master Plan proposes safety and efficiency improvements to the airport as a key component of the regional aviation transportation network, and we appreciate Caltrans' support of the project. Please feel free to call me with any questions at (858) 694-3906.

Sincerely,

CYNTHIA CURTIS, Environmental Planning Manager
Department of Public Works

Attachment: *McClellan-Palomar Airport Master Plan—Response to Caltrans Request For Additional Technical Traffic Analysis: Tables 1 & 2, and associated Synchro data tables*

cc: Kimberly Dodson, Caltrans Associate Transportation Planner
Tan Doan, Caltrans Traffic Operations Engineer

CALTRANS Signature
(Indicating concurrence with this letter)

Date

LINSCOTT
LAW &
GREENSPAN
engineers

McClellan-Palomar Airport Master Plan: Response to Caltrans Request For Additional Technical Traffic Analysis

April 30, 2018

LLG Ref. 3-17-2772

TABLE 1
LONG-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Long-Term w/o Project (PAL2) – TIA Peak Hour		Long-Term + LT Project (PAL2) – TIA Peak Hour				Peak Hour	Long-Term w/o Project (PAL2) – Caltrans Peak Hour		Long-Term + LT Project (PAL2) – Caltrans Peak Hour			
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Δ	Sig?[c]		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Δ	Sig?[c]
6. Palomar Airport Road / I-5 NB Ramps	7-9AM	43.4	D	46.2	D	2.8	No	11AM – 12 PM	41.8	D	45.1	D	3.3	No
	4-6 PM	29.5	C	32.0	C	2.5	No	1-2PM	44.0	D	45.7	D	1.7	No

Footnotes:

a. Average delay expressed in seconds per vehicle. ***Attachment A*** contains the Caltrans peak hour Synchro worksheets.
b. Level of Service
c. Δ denotes an increase in delay due to Project.

SIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

TABLE 2
PALOMAR AIRPORT ROAD / I-5 NB RAMPS INTERSECTION OPERATIONS (REVISED SIGNAL TIMING)

Scenario	Control Type	Peak Hour	Baseline		Baseline + (Project) PAL1			Baseline + Project (PAL2)		
			Delay[a]	LOS[b]	Delay	LOS	Δ[c]	Delay	LOS	Δ
Existing + Cumulative (TIA)	Signal	AM	44.4	D	44.5	D	0.1	44.6	D	0.2
		PM	39.0	D	39.2	D	0.2	39.4	D	0.4
Existing + Cumulative (Revised)	Signal	AM	22.8	C	22.9	C	0.1	23.0	C	0.2
		PM	20.0	B	20.1	C	0.1	20.2	C	0.2
Long-Term (TIA)	Signal	AM	50.4	D	51.1	D	0.7	51.8	D	1.4
		PM	46.0	D	47.0	D	1.0	48.0	D	2.0
Long-Term (Revised)	Signal	AM	43.4	D	45.3	D	1.9	46.2	D	2.8
		PM	29.5	C	30.8	C	1.3	32.0	C	2.5

Footnotes:

a. Average delay expressed in seconds per vehicle. ***Attachment B*** contains the Synchro worksheets for the revised scenarios.
b. Level of Service
c. Δ denotes an increase in delay due to Project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

ATTACHMENT A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2010	0	0	1070	770	80	0	1180	0	0	0
Future Volume (veh/h)	140	2010	0	0	1070	770	80	0	1180	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	144	2072	0	0	1103	794	82	0	1216			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	151	2267	0	0	1637	856	812	0	1247			
Arrive On Green	0.09	0.45	0.00	0.00	0.33	0.33	0.46	0.00	0.46			
Sat Flow, veh/h	1757	5202	0	0	5202	2632	1757	0	2696			
Grp Volume(v), veh/h	144	2072	0	0	1103	794	82	0	1216			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1316	1757	0	1348			
Q Serve(g_s), s	9.8	46.1	0.0	0.0	22.7	35.0	3.2	0.0	53.0			
Cycle Q Clear(g_c), s	9.8	46.1	0.0	0.0	22.7	35.0	3.2	0.0	53.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	151	2267	0	0	1637	856	812	0	1247			
V/C Ratio(X)	0.96	0.91	0.00	0.00	0.67	0.93	0.10	0.00	0.98			
Avail Cap(c_a), veh/h	151	2837	0	0	2207	1154	906	0	1391			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	54.6	30.8	0.0	0.0	35.0	39.1	18.2	0.0	31.6			
Incr Delay (d2), s/veh	59.2	3.9	0.0	0.0	0.2	9.0	0.0	0.0	17.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	22.1	0.0	0.0	10.5	13.8	1.5	0.0	22.6			
LnGrp Delay(d),s/veh	113.8	34.7	0.0	0.0	35.2	48.2	18.2	0.0	48.8			
LnGrp LOS	F	C			D	D	B		D			
Approach Vol, veh/h		2216			1897			1298				
Approach Delay, s/veh		39.8			40.6			46.9				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		59.4			15.0	44.4		60.6
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		67.6			* 10	52.6		61.9
Max Q Clear Time (g_c+I1), s		48.1			11.8	37.0		55.0
Green Ext Time (p_c), s		4.3			0.0	2.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	41.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1200	0	0	1690	890	170	0	1020	0	0	0
Future Volume (veh/h)	210	1200	0	0	1690	890	170	0	1020	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	214	1224	0	0	1724	908	173	0	1041			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	188	2600	0	0	1871	981	702	0	1075			
Arrive On Green	0.11	0.52	0.00	0.00	0.37	0.37	0.40	0.00	0.40			
Sat Flow, veh/h	1757	5202	0	0	5202	2641	1757	0	2691			
Grp Volume(v), veh/h	214	1224	0	0	1724	908	173	0	1041			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1320	1757	0	1346			
Q Serve(g_s), s	13.3	19.3	0.0	0.0	40.7	41.0	8.2	0.0	47.1			
Cycle Q Clear(g_c), s	13.3	19.3	0.0	0.0	40.7	41.0	8.2	0.0	47.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	188	2600	0	0	1871	981	702	0	1075			
V/C Ratio(X)	1.14	0.47	0.00	0.00	0.92	0.93	0.25	0.00	0.97			
Avail Cap(c_a), veh/h	188	2939	0	0	2211	1159	945	0	1447			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.5	19.2	0.0	0.0	37.4	37.4	24.9	0.0	36.6			
Incr Delay (d2), s/veh	108.1	0.0	0.0	0.0	5.8	10.4	0.1	0.0	13.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.1	9.0	0.0	0.0	19.8	16.3	4.0	0.0	19.4			
LnGrp Delay(d),s/veh	163.6	19.3	0.0	0.0	43.1	47.9	25.0	0.0	49.6			
LnGrp LOS	F	B			D	D	C		D			
Approach Vol, veh/h		1438			2632			1214				
Approach Delay, s/veh		40.8			44.8			46.1				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.6			18.0	51.6		54.8
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		72.6			* 13	54.6		66.9
Max Q Clear Time (g_c+I1), s		21.3			15.3	43.0		49.1
Green Ext Time (p_c), s		2.2			0.0	3.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	2031	0	0	1084	783	80	0	1199	0	0	0
Future Volume (veh/h)	140	2031	0	0	1084	783	80	0	1199	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	144	2094	0	0	1118	807	82	0	1236			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	144	2256	0	0	1655	865	823	0	1264			
Arrive On Green	0.08	0.45	0.00	0.00	0.33	0.33	0.47	0.00	0.47			
Sat Flow, veh/h	1757	5202	0	0	5202	2633	1757	0	2696			
Grp Volume(v), veh/h	144	2094	0	0	1118	807	82	0	1236			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1316	1757	0	1348			
Q Serve(g_s), s	10.3	49.4	0.0	0.0	24.1	37.3	3.3	0.0	56.6			
Cycle Q Clear(g_c), s	10.3	49.4	0.0	0.0	24.1	37.3	3.3	0.0	56.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	144	2256	0	0	1655	865	823	0	1264			
V/C Ratio(X)	1.00	0.93	0.00	0.00	0.68	0.93	0.10	0.00	0.98			
Avail Cap(c_a), veh/h	144	2706	0	0	2105	1101	864	0	1326			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	57.8	32.8	0.0	0.0	36.4	40.9	18.6	0.0	32.8			
Incr Delay (d2), s/veh	75.4	5.2	0.0	0.0	0.3	10.8	0.0	0.0	19.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.0	24.0	0.0	0.0	11.2	14.9	1.6	0.0	24.3			
LnGrp Delay(d),s/veh	133.2	38.0	0.0	0.0	36.8	51.7	18.7	0.0	51.8			
LnGrp LOS	F	D			D	D	B		D			
Approach Vol, veh/h		2238			1925			1318				
Approach Delay, s/veh		44.2			43.0			49.7				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		61.8			15.0	46.8		64.1
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		67.6			* 10	52.6		61.9
Max Q Clear Time (g_c+I1), s		51.4			12.3	39.3		58.6
Green Ext Time (p_c), s		4.2			0.0	2.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	45.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1091	0	0	1521	909	170	0	1039	0	0	0
Future Volume (veh/h)	210	1091	0	0	1521	909	170	0	1039	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	214	1113	0	0	1552	928	173	0	1060			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	180	2585	0	0	1886	989	713	0	1092			
Arrive On Green	0.10	0.51	0.00	0.00	0.37	0.37	0.41	0.00	0.41			
Sat Flow, veh/h	1757	5202	0	0	5202	2641	1757	0	2692			
Grp Volume(v), veh/h	214	1113	0	0	1552	928	173	0	1060			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1321	1757	0	1346			
Q Serve(g_s), s	13.3	17.9	0.0	0.0	36.1	43.9	8.4	0.0	50.1			
Cycle Q Clear(g_c), s	13.3	17.9	0.0	0.0	36.1	43.9	8.4	0.0	50.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	180	2585	0	0	1886	989	713	0	1092			
V/C Ratio(X)	1.19	0.43	0.00	0.00	0.82	0.94	0.24	0.00	0.97			
Avail Cap(c_a), veh/h	180	2819	0	0	2120	1112	906	0	1389			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	58.2	19.7	0.0	0.0	36.7	39.1	25.4	0.0	37.8			
Incr Delay (d2), s/veh	126.6	0.0	0.0	0.0	2.2	13.1	0.1	0.0	14.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.7	8.3	0.0	0.0	17.1	17.8	4.1	0.0	20.8			
LnGrp Delay(d),s/veh	184.8	19.8	0.0	0.0	38.9	52.2	25.5	0.0	52.4			
LnGrp LOS	F	B			D	D	C		D			
Approach Vol, veh/h		1327			2480			1233				
Approach Delay, s/veh		46.4			43.8			48.6				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		72.0			18.0	54.0		57.7
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		72.6			* 13	54.6		66.9
Max Q Clear Time (g_c+I1), s		19.9			15.3	45.9		52.1
Green Ext Time (p_c), s		1.9			0.0	2.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	45.7
HCM 2010 LOS	D

Notes

ATTACHMENT B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1630	0	0	860	450	70	0	1200	0	0	0
Future Volume (veh/h)	80	1630	0	0	860	450	70	0	1200	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1680	0	0	887	464	72	0	1237			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	105	1919	0	0	1299	674	838	0	1287			
Arrive On Green	0.06	0.38	0.00	0.00	0.26	0.26	0.48	0.00	0.48			
Sat Flow, veh/h	1757	5202	0	0	5202	2613	1757	0	2697			
Grp Volume(v), veh/h	82	1680	0	0	887	464	72	0	1237			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1307	1757	0	1348			
Q Serve(g_s), s	3.4	23.0	0.0	0.0	11.8	11.9	1.7	0.0	32.8			
Cycle Q Clear(g_c), s	3.4	23.0	0.0	0.0	11.8	11.9	1.7	0.0	32.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	105	1919	0	0	1299	674	838	0	1287			
V/C Ratio(X)	0.78	0.88	0.00	0.00	0.68	0.69	0.09	0.00	0.96			
Avail Cap(c_a), veh/h	304	3786	0	0	2597	1347	1750	0	2686			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.4	21.3	0.0	0.0	24.8	24.8	10.6	0.0	18.7			
Incr Delay (d2), s/veh	4.7	0.5	0.0	0.0	0.2	0.5	0.0	0.0	2.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	10.7	0.0	0.0	5.4	4.3	0.8	0.0	12.5			
LnGrp Delay(d),s/veh	39.1	21.8	0.0	0.0	25.0	25.3	10.6	0.0	21.1			
LnGrp LOS	D	C			C	C	B		C			
Approach Vol, veh/h		1762			1351			1309				
Approach Delay, s/veh		22.6			25.1			20.6				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		33.6			9.1	24.5		40.4
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		25.0			5.4	13.9		34.8
Green Ext Time (p_c), s		3.3			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1250	0	0	1770	1000	90	0	540	0	0	0
Future Volume (veh/h)	220	1250	0	0	1770	1000	90	0	540	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1276	0	0	1806	1020	92	0	551			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	262	3216	0	0	2169	1141	403	0	611			
Arrive On Green	0.15	0.64	0.00	0.00	0.43	0.43	0.23	0.00	0.23			
Sat Flow, veh/h	1757	5202	0	0	5202	2650	1757	0	2665			
Grp Volume(v), veh/h	224	1276	0	0	1806	1020	92	0	551			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1325	1757	0	1332			
Q Serve(g_s), s	9.9	9.8	0.0	0.0	25.4	28.4	3.4	0.0	16.0			
Cycle Q Clear(g_c), s	9.9	9.8	0.0	0.0	25.4	28.4	3.4	0.0	16.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	262	3216	0	0	2169	1141	403	0	611			
V/C Ratio(X)	0.86	0.40	0.00	0.00	0.83	0.89	0.23	0.00	0.90			
Avail Cap(c_a), veh/h	757	5729	0	0	3263	1717	1079	0	1636			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.0	7.0	0.0	0.0	20.1	21.0	25.0	0.0	29.8			
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.0	0.7	3.2	0.1	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.0	4.5	0.0	0.0	11.9	10.8	1.6	0.0	6.1			
LnGrp Delay(d),s/veh	36.2	7.0	0.0	0.0	20.9	24.1	25.1	0.0	31.9			
LnGrp LOS	D	A			C	C	C		C			
Approach Vol, veh/h		1500			2826			643				
Approach Delay, s/veh		11.3			22.0			30.9				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.3			16.6	39.7		23.4
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		11.8			11.9	30.4		18.0
Green Ext Time (p_c), s		2.3			0.0	3.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1633	0	0	862	452	70	0	1202	0	0	0
Future Volume (veh/h)	80	1633	0	0	862	452	70	0	1202	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1684	0	0	889	466	72	0	1239			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	105	1921	0	0	1304	677	839	0	1289			
Arrive On Green	0.06	0.38	0.00	0.00	0.26	0.26	0.48	0.00	0.48			
Sat Flow, veh/h	1757	5202	0	0	5202	2613	1757	0	2697			
Grp Volume(v), veh/h	82	1684	0	0	889	466	72	0	1239			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1307	1757	0	1348			
Q Serve(g_s), s	3.4	23.2	0.0	0.0	11.9	12.0	1.7	0.0	33.1			
Cycle Q Clear(g_c), s	3.4	23.2	0.0	0.0	11.9	12.0	1.7	0.0	33.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	105	1921	0	0	1304	677	839	0	1289			
V/C Ratio(X)	0.78	0.88	0.00	0.00	0.68	0.69	0.09	0.00	0.96			
Avail Cap(c_a), veh/h	301	3758	0	0	2577	1338	1737	0	2666			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.6	21.4	0.0	0.0	24.9	24.9	10.6	0.0	18.8			
Incr Delay (d2), s/veh	4.7	0.5	0.0	0.0	0.2	0.5	0.0	0.0	2.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	10.7	0.0	0.0	5.5	4.4	0.8	0.0	12.7			
LnGrp Delay(d),s/veh	39.3	22.0	0.0	0.0	25.1	25.4	10.6	0.0	21.3			
LnGrp LOS	D	C			C	C	B		C			
Approach Vol, veh/h		1766			1355			1311				
Approach Delay, s/veh		22.8			25.2			20.7				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		33.9			9.2	24.7		40.8
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		25.2			5.4	14.0		35.1
Green Ext Time (p_c), s		3.3			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1253	0	0	1772	1003	90	0	542	0	0	0
Future Volume (veh/h)	220	1253	0	0	1772	1003	90	0	542	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1279	0	0	1808	1023	92	0	553			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	262	3218	0	0	2172	1143	404	0	613			
Arrive On Green	0.15	0.64	0.00	0.00	0.43	0.43	0.23	0.00	0.23			
Sat Flow, veh/h	1757	5202	0	0	5202	2650	1757	0	2665			
Grp Volume(v), veh/h	224	1279	0	0	1808	1023	92	0	553			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1325	1757	0	1333			
Q Serve(g_s), s	10.0	9.9	0.0	0.0	25.5	28.7	3.4	0.0	16.2			
Cycle Q Clear(g_c), s	10.0	9.9	0.0	0.0	25.5	28.7	3.4	0.0	16.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	262	3218	0	0	2172	1143	404	0	613			
V/C Ratio(X)	0.86	0.40	0.00	0.00	0.83	0.89	0.23	0.00	0.90			
Avail Cap(c_a), veh/h	752	5692	0	0	3242	1706	1072	0	1626			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.3	7.0	0.0	0.0	20.2	21.1	25.1	0.0	30.0			
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.0	0.8	3.3	0.1	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	4.5	0.0	0.0	11.9	10.9	1.7	0.0	6.1			
LnGrp Delay(d),s/veh	36.4	7.0	0.0	0.0	21.0	24.4	25.2	0.0	32.0			
LnGrp LOS	D	A			C	C	C		C			
Approach Vol, veh/h		1503			2831			645				
Approach Delay, s/veh		11.4			22.2			31.1				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.6			16.6	40.0		23.5
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		11.9			12.0	30.7		18.2
Green Ext Time (p_c), s		2.3			0.0	3.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1634	0	0	863	453	70	0	1204	0	0	0
Future Volume (veh/h)	80	1634	0	0	863	453	70	0	1204	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	82	1685	0	0	890	467	72	0	1241			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	105	1921	0	0	1305	677	841	0	1290			
Arrive On Green	0.06	0.38	0.00	0.00	0.26	0.26	0.48	0.00	0.48			
Sat Flow, veh/h	1757	5202	0	0	5202	2614	1757	0	2697			
Grp Volume(v), veh/h	82	1685	0	0	890	467	72	0	1241			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1307	1757	0	1348			
Q Serve(g_s), s	3.5	23.3	0.0	0.0	11.9	12.1	1.7	0.0	33.3			
Cycle Q Clear(g_c), s	3.5	23.3	0.0	0.0	11.9	12.1	1.7	0.0	33.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	105	1921	0	0	1305	677	841	0	1290			
V/C Ratio(X)	0.78	0.88	0.00	0.00	0.68	0.69	0.09	0.00	0.96			
Avail Cap(c_a), veh/h	300	3741	0	0	2566	1332	1729	0	2654			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.8	21.6	0.0	0.0	25.0	25.1	10.6	0.0	18.9			
Incr Delay (d2), s/veh	4.7	0.5	0.0	0.0	0.2	0.5	0.0	0.0	2.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	10.9	0.0	0.0	5.5	4.4	0.8	0.0	12.7			
LnGrp Delay(d),s/veh	39.5	22.1	0.0	0.0	25.2	25.5	10.6	0.0	21.3			
LnGrp LOS	D	C			C	C	B		C			
Approach Vol, veh/h		1767			1357			1313				
Approach Delay, s/veh		22.9			25.3			20.8				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		34.0			9.2	24.8		41.0
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		55.7			* 13	38.2		73.8
Max Q Clear Time (g_c+I1), s		25.3			5.5	14.1		35.3
Green Ext Time (p_c), s		3.3			0.0	1.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1254	0	0	1774	1004	90	0	544	0	0	0
Future Volume (veh/h)	220	1254	0	0	1774	1004	90	0	544	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	224	1280	0	0	1810	1024	92	0	555			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	262	3217	0	0	2173	1144	405	0	615			
Arrive On Green	0.15	0.64	0.00	0.00	0.43	0.43	0.23	0.00	0.23			
Sat Flow, veh/h	1757	5202	0	0	5202	2650	1757	0	2665			
Grp Volume(v), veh/h	224	1280	0	0	1810	1024	92	0	555			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1325	1757	0	1333			
Q Serve(g_s), s	10.0	9.9	0.0	0.0	25.7	28.8	3.4	0.0	16.3			
Cycle Q Clear(g_c), s	10.0	9.9	0.0	0.0	25.7	28.8	3.4	0.0	16.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	262	3217	0	0	2173	1144	405	0	615			
V/C Ratio(X)	0.86	0.40	0.00	0.00	0.83	0.90	0.23	0.00	0.90			
Avail Cap(c_a), veh/h	749	5669	0	0	3229	1699	1067	0	1619			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.4	7.0	0.0	0.0	20.3	21.2	25.1	0.0	30.1			
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.0	0.8	3.4	0.1	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	4.5	0.0	0.0	11.9	11.1	1.7	0.0	6.2			
LnGrp Delay(d),s/veh	36.5	7.1	0.0	0.0	21.1	24.6	25.2	0.0	32.2			
LnGrp LOS	D	A			C	C	C		C			
Approach Vol, veh/h		1504			2834			647				
Approach Delay, s/veh		11.5			22.3			31.2				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.8			16.7	40.1		23.7
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		11.9			12.0	30.8		18.3
Green Ext Time (p_c), s		2.3			0.0	3.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1840	0	0	980	500	80	0	1320	0	0	0
Future Volume (veh/h)	90	1840	0	0	980	500	80	0	1320	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1897	0	0	1010	515	82	0	1361			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	115	2033	0	0	1517	791	902	0	1386			
Arrive On Green	0.07	0.40	0.00	0.00	0.30	0.30	0.51	0.00	0.51			
Sat Flow, veh/h	1757	5202	0	0	5202	2626	1757	0	2699			
Grp Volume(v), veh/h	93	1897	0	0	1010	515	82	0	1361			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1313	1757	0	1349			
Q Serve(g_s), s	6.6	45.8	0.0	0.0	22.3	21.7	3.0	0.0	62.9			
Cycle Q Clear(g_c), s	6.6	45.8	0.0	0.0	22.3	21.7	3.0	0.0	62.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	115	2033	0	0	1517	791	902	0	1386			
V/C Ratio(X)	0.81	0.93	0.00	0.00	0.67	0.65	0.09	0.00	0.98			
Avail Cap(c_a), veh/h	428	2445	0	0	1517	791	937	0	1440			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	58.6	36.3	0.0	0.0	38.8	38.6	15.8	0.0	30.3			
Incr Delay (d2), s/veh	5.0	6.0	0.0	0.0	0.9	1.5	0.0	0.0	19.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.4	22.4	0.0	0.0	10.4	8.0	1.5	0.0	26.9			
LnGrp Delay(d),s/veh	63.6	42.3	0.0	0.0	39.7	40.1	15.8	0.0	49.3			
LnGrp LOS	E	D			D	D	B		D			
Approach Vol, veh/h		1990			1525			1443				
Approach Delay, s/veh		43.3			39.9			47.4				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.7			13.0	43.7		70.4
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		61.7			* 31	26.0		67.8
Max Q Clear Time (g_c+I1), s		47.8			8.6	24.3		64.9
Green Ext Time (p_c), s		3.5			0.0	0.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1420	0	0	2000	1100	100	0	600	0	0	0
Future Volume (veh/h)	250	1420	0	0	2000	1100	100	0	600	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1449	0	0	2041	1122	102	0	612			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	284	3304	0	0	2270	1195	432	0	656			
Arrive On Green	0.16	0.66	0.00	0.00	0.45	0.45	0.25	0.00	0.25			
Sat Flow, veh/h	1757	5202	0	0	5202	2652	1757	0	2669			
Grp Volume(v), veh/h	255	1449	0	0	2041	1122	102	0	612			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1326	1757	0	1335			
Q Serve(g_s), s	15.2	14.9	0.0	0.0	40.1	43.1	5.0	0.0	24.0			
Cycle Q Clear(g_c), s	15.2	14.9	0.0	0.0	40.1	43.1	5.0	0.0	24.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	284	3304	0	0	2270	1195	432	0	656			
V/C Ratio(X)	0.90	0.44	0.00	0.00	0.90	0.94	0.24	0.00	0.93			
Avail Cap(c_a), veh/h	563	4260	0	0	2426	1278	802	0	1219			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	44.0	8.9	0.0	0.0	27.2	28.0	32.3	0.0	39.5			
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.0	4.6	12.4	0.1	0.0	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.7	6.9	0.0	0.0	19.5	17.8	2.4	0.0	9.1			
LnGrp Delay(d),s/veh	48.2	8.9	0.0	0.0	31.7	40.4	32.4	0.0	42.4			
LnGrp LOS	D	A			C	D	C		D			
Approach Vol, veh/h		1704			3163			714				
Approach Delay, s/veh		14.8			34.8			41.0				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		75.7			22.0	53.7		31.4
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		16.9			17.2	45.1		26.0
Green Ext Time (p_c), s		2.7			0.1	3.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1851	0	0	987	507	80	0	1330	0	0	0
Future Volume (veh/h)	90	1851	0	0	987	507	80	0	1330	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1908	0	0	1018	523	82	0	1371			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	115	2036	0	0	1527	796	906	0	1392			
Arrive On Green	0.07	0.40	0.00	0.00	0.30	0.30	0.52	0.00	0.52			
Sat Flow, veh/h	1757	5202	0	0	5202	2627	1757	0	2699			
Grp Volume(v), veh/h	93	1908	0	0	1018	523	82	0	1371			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1313	1757	0	1349			
Q Serve(g_s), s	6.9	47.7	0.0	0.0	23.2	22.7	3.1	0.0	65.6			
Cycle Q Clear(g_c), s	6.9	47.7	0.0	0.0	23.2	22.7	3.1	0.0	65.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	115	2036	0	0	1527	796	906	0	1392			
V/C Ratio(X)	0.81	0.94	0.00	0.00	0.67	0.66	0.09	0.00	0.99			
Avail Cap(c_a), veh/h	415	2368	0	0	1527	796	908	0	1394			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	60.5	37.5	0.0	0.0	39.9	39.8	16.1	0.0	31.3			
Incr Delay (d2), s/veh	5.1	6.8	0.0	0.0	0.9	1.6	0.0	0.0	20.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	23.4	0.0	0.0	10.9	8.4	1.5	0.0	28.3			
LnGrp Delay(d),s/veh	65.6	44.3	0.0	0.0	40.8	41.4	16.2	0.0	51.8			
LnGrp LOS	E	D			D	D	B		D			
Approach Vol, veh/h		2001			1541			1453				
Approach Delay, s/veh		45.3			41.0			49.8				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		58.5			13.3	45.2		72.8
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		61.7			* 31	26.0		67.8
Max Q Clear Time (g_c+I1), s		49.7			8.9	25.2		67.6
Green Ext Time (p_c), s		3.4			0.0	0.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1431	0	0	2011	1110	100	0	610	0	0	0
Future Volume (veh/h)	250	1431	0	0	2011	1110	100	0	610	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1460	0	0	2052	1133	102	0	622			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	283	3299	0	0	2272	1196	438	0	665			
Arrive On Green	0.16	0.66	0.00	0.00	0.45	0.45	0.25	0.00	0.25			
Sat Flow, veh/h	1757	5202	0	0	5202	2652	1757	0	2670			
Grp Volume(v), veh/h	255	1460	0	0	2052	1133	102	0	622			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1326	1757	0	1335			
Q Serve(g_s), s	15.6	15.4	0.0	0.0	41.4	44.9	5.1	0.0	25.0			
Cycle Q Clear(g_c), s	15.6	15.4	0.0	0.0	41.4	44.9	5.1	0.0	25.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	283	3299	0	0	2272	1196	438	0	665			
V/C Ratio(X)	0.90	0.44	0.00	0.00	0.90	0.95	0.23	0.00	0.94			
Avail Cap(c_a), veh/h	550	4161	0	0	2370	1248	784	0	1191			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.1	9.2	0.0	0.0	27.9	28.8	32.8	0.0	40.3			
Incr Delay (d2), s/veh	4.2	0.0	0.0	0.0	5.0	14.1	0.1	0.0	4.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.9	7.0	0.0	0.0	20.1	18.7	2.5	0.0	9.6			
LnGrp Delay(d),s/veh	49.4	9.2	0.0	0.0	32.9	42.9	32.9	0.0	44.4			
LnGrp LOS	D	A			C	D	C		D			
Approach Vol, veh/h		1715			3185			724				
Approach Delay, s/veh		15.2			36.4			42.8				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		77.2			22.4	54.9		32.4
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		17.4			17.6	46.9		27.0
Green Ext Time (p_c), s		2.7			0.1	2.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1861	0	0	994	513	80	0	1339	0	0	0
Future Volume (veh/h)	90	1861	0	0	994	513	80	0	1339	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	93	1919	0	0	1025	529	82	0	1380			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	115	2046	0	0	1537	802	903	0	1388			
Arrive On Green	0.07	0.41	0.00	0.00	0.31	0.31	0.51	0.00	0.51			
Sat Flow, veh/h	1757	5202	0	0	5202	2627	1757	0	2699			
Grp Volume(v), veh/h	93	1919	0	0	1025	529	82	0	1380			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1314	1757	0	1349			
Q Serve(g_s), s	6.9	48.2	0.0	0.0	23.4	23.1	3.1	0.0	67.0			
Cycle Q Clear(g_c), s	6.9	48.2	0.0	0.0	23.4	23.1	3.1	0.0	67.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	115	2046	0	0	1537	802	903	0	1388			
V/C Ratio(X)	0.81	0.94	0.00	0.00	0.67	0.66	0.09	0.00	0.99			
Avail Cap(c_a), veh/h	413	2356	0	0	1537	802	903	0	1388			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	60.8	37.6	0.0	0.0	40.0	39.8	16.3	0.0	31.8			
Incr Delay (d2), s/veh	5.1	7.0	0.0	0.0	0.9	1.6	0.0	0.0	22.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	23.5	0.0	0.0	10.9	8.6	1.5	0.0	29.3			
LnGrp Delay(d),s/veh	65.9	44.6	0.0	0.0	40.9	41.5	16.3	0.0	54.6			
LnGrp LOS	E	D			D	D	B		D			
Approach Vol, veh/h		2012			1554			1462				
Approach Delay, s/veh		45.6			41.1			52.5				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		59.0			13.3	45.7		72.9
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		61.7			* 31	26.0		67.8
Max Q Clear Time (g_c+I1), s		50.2			8.9	25.4		69.0
Green Ext Time (p_c), s		3.4			0.0	0.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1441	0	0	2021	1119	100	0	619	0	0	0
Future Volume (veh/h)	250	1441	0	0	2021	1119	100	0	619	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	255	1470	0	0	2062	1142	102	0	632			
Adj No. of Lanes	1	3	0	0	3	2	0	1	2			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	283	3291	0	0	2270	1195	444	0	674			
Arrive On Green	0.16	0.65	0.00	0.00	0.45	0.45	0.25	0.00	0.25			
Sat Flow, veh/h	1757	5202	0	0	5202	2652	1757	0	2671			
Grp Volume(v), veh/h	255	1470	0	0	2062	1142	102	0	632			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1326	1757	0	1335			
Q Serve(g_s), s	15.9	16.0	0.0	0.0	42.6	46.4	5.1	0.0	25.9			
Cycle Q Clear(g_c), s	15.9	16.0	0.0	0.0	42.6	46.4	5.1	0.0	25.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	283	3291	0	0	2270	1195	444	0	674			
V/C Ratio(X)	0.90	0.45	0.00	0.00	0.91	0.96	0.23	0.00	0.94			
Avail Cap(c_a), veh/h	539	4083	0	0	2325	1225	769	0	1169			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	46.0	9.5	0.0	0.0	28.5	29.6	33.1	0.0	40.9			
Incr Delay (d2), s/veh	4.3	0.0	0.0	0.0	5.5	15.8	0.1	0.0	5.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.1	7.4	0.0	0.0	20.8	19.6	2.5	0.0	10.1			
LnGrp Delay(d),s/veh	50.3	9.5	0.0	0.0	34.0	45.4	33.2	0.0	46.1			
LnGrp LOS	D	A			C	D	C		D			
Approach Vol, veh/h		1725			3204			734				
Approach Delay, s/veh		15.5			38.1			44.3				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		78.4			22.7	55.8		33.3
Change Period (Y+Rc), s		5.4			* 4.7	5.4		5.1
Max Green Setting (Gmax), s		90.6			* 34	51.6		48.9
Max Q Clear Time (g_c+I1), s		18.0			17.9	48.4		27.9
Green Ext Time (p_c), s		2.7			0.1	1.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Notes