

**SKYLINE VILLAGE
COMMERCIAL CENTER
TRAFFIC IMPACT STUDY
City of Corona, California**

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1.0 Introduction

1.1 Purpose of Report & Study Objectives

The purpose of this traffic study is to assess the impacts of the proposed Skyline Village Commercial Center development.

The proposed project consists of the construction and operation of a mixed-use retail/commercial center and a residential development on approximately 17.02 acres of vacant land. The following land uses are proposed for the development:

- 78 dwelling units of Residential Condominiums;
- 1,568 square feet of Coffee/Donut Shop Without Drive-Thru;
- 5,587 square feet of General Retail use;
- 1,960 square feet of Fast Food Without Drive-Thru Restaurant;
- 4,620 square feet of General Office use;
- 4,620 square feet of Day Spa use; and
- 7,550 square feet of a Drinking Place use.

The project is located southwest of Foothill Parkway at Chase Drive in the City of Corona.

The project will be evaluated in a single phase and is planned to open in 2022.

Access for the proposed project is planned to be provided via one (1) signalized driveway along Foothill Parkway, at the existing intersection with Chase Drive.

A dedicated right-turn lane from Foothill Parkway onto Chase Drive will also be provided as part of the proposed project.

This traffic study has been prepared in accordance with the traffic study guidelines, requirements and thresholds of significance for the City of Corona.

This study is prepared in accordance with the scope of work approved by the City of Corona staff. A copy of the approved scope of work is contained in Appendix F.

1.2 Site Location & Project Description

The proposed project consists of the construction and operation of a mixed-use retail/commercial center and a residential development on approximately 17.02 acres of vacant land. The following land uses are proposed for the development:

- 78 dwelling units of Residential Condominiums;
- 1,568 square feet of Coffee/Donut Shop Without Drive-Thru;
- 5,587 square feet of General Retail use;
- 1,960 square feet of Fast Food Without Drive-Thru Restaurant;
- 4,620 square feet of General Office use;
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- 7,550 square feet of a Drinking Place use.

The project is located southwest of Foothill Parkway at Chase Drive in the City of Corona.

The project will be evaluated in a single phase and is planned to open in 2022.

Access for the proposed project is planned to be provided via one (1) signalized driveway along Foothill Parkway, at the existing intersection with Chase Drive.

The location of the project site is presented on Exhibit 1-1. The site plan is shown on Exhibit 1-2.

1.3 Traffic Study Area & Analysis Scenarios

Exhibit 1-1 illustrates the site's location map and traffic analysis study area. The study area consists of the following study intersections:

North-South Street	East-West Street
1. Serfas Club Drive	Green River Road
2. Montana Ranch Road	Green River Road
3. Tanglewood Drive	Green River Road
4. Paseo Grande	Green River Road
5. Border Avenue	Green River Road
6. Chase Drive	Foothill Parkway
7. Lincoln Avenue	Foothill Parkway
8. Main Street	Foothill Parkway
9. Fullerton Avenue	Foothill Parkway

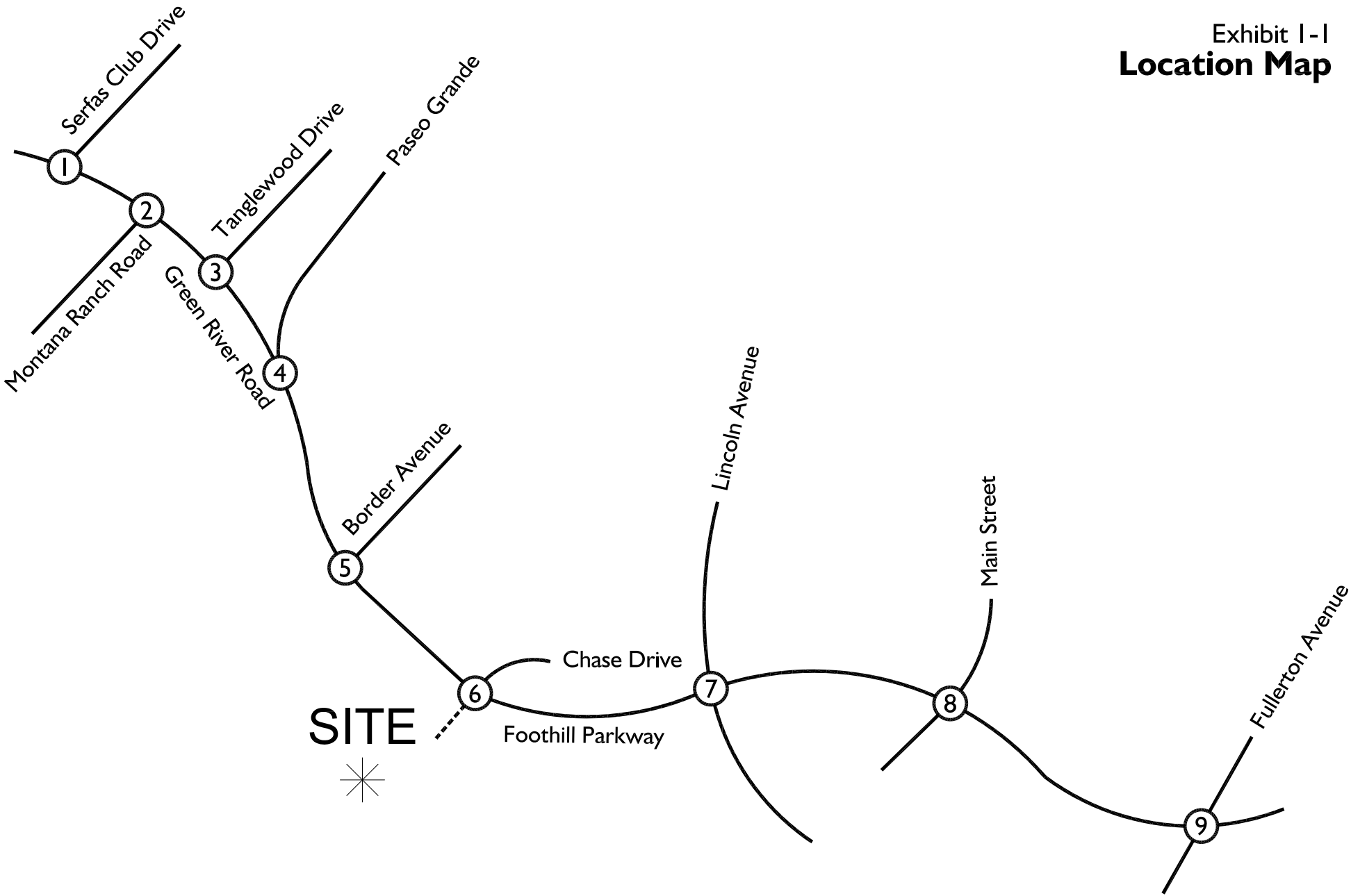
The study also evaluates the following roadway segments:

	Street	Segment
1.	Green River Road	West of Serfas Club Drive
2.	Serfas Club Drive	North of Green River Road
3.	Green River Road	East of Serfas Club Drive
4.	Montana Ranch Road	South of Green River Road
5.	Green River Road	East of Montana Ranch Road
6.	Tanglewood Drive	North of Green River Road
7.	Tanglewood Drive	South of Green River Road
8.	Green River Road	East of Tanglewood Drive
9.	Paseo Grande	North of Foothill Parkway
10.	Foothill Parkway	East of Paseo Grande
11.	Border Avenue	North of Foothill Parkway

12.	Foothill Parkway	East of Border Avenue
13.	Chase Driveway	North of Foothill Parkway
14.	Chase Driveway – Project Access	South of Foothill Parkway
15.	Foothill Parkway	East of Chase Drive
16.	Lincoln Avenue	North of Foothill Parkway
17.	Lincoln Avenue	South of Foothill Parkway
18.	Foothill Parkway	East of Lincoln Avenue
19.	Main Street	North of Foothill Parkway
20.	Main Street	South of Foothill Parkway
21.	Foothill Parkway	East of Main Street
22.	Fullerton Avenue	North of Foothill Parkway
23.	Fullerton Avenue	South of Foothill Parkway
24.	Foothill Parkway	East of Fullerton Avenue

The analysis evaluates traffic conditions of the study intersections and roadway segments for the following scenarios in accordance with the City of Corona and the approved scope of work:

- Existing (2021) Conditions;
- Existing (2021) Plus Project Conditions;
- Project Opening Year (2022) with Background Traffic Conditions; and
- Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.



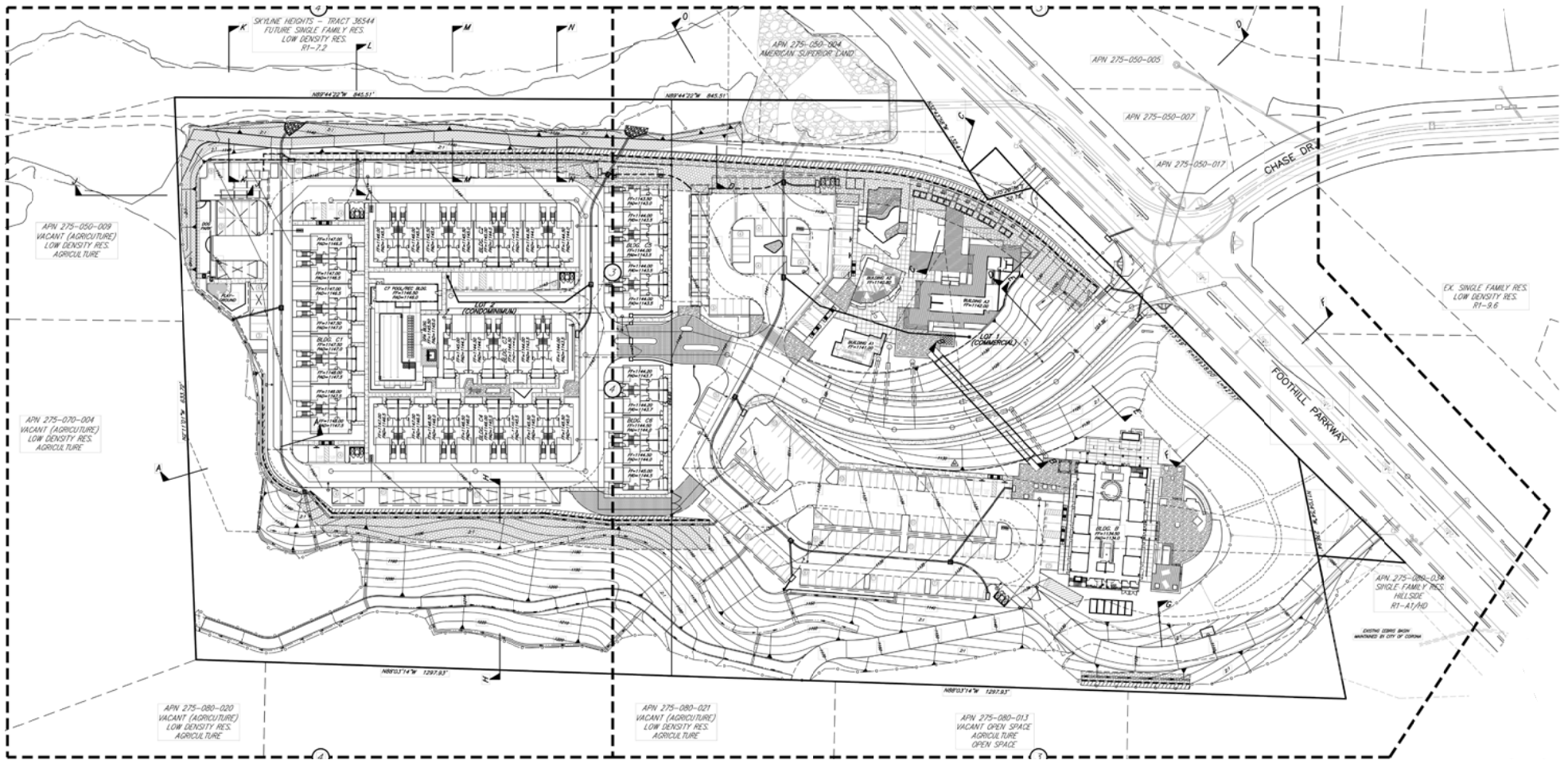
SITE
*

Legend:

- ① = Study Area Intersection
- * = Project Site
- = Project Access Driveway



Exhibit I-2 Site Plan



2.0 Analysis Methodologies, Performance Criteria, & Thresholds of Significance

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Corona requirements.

This section also discusses the agency-established applicable performance criteria and thresholds of significance for the study facilities.

2.1 Intersection Peak Hour Level of Service Analysis Methodology

The current technical guide to the evaluation of traffic operations is the Highway Capacity Manual (HCM 6th Edition). The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS D represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM methodology.

For signalized intersections, average control delay per vehicle is used to determine the level of service. Levels of service at signalized study intersections have been evaluated using the HCM intersection analysis program.

Study area intersections, which are stop sign controlled with stop control on the minor street only, have been analyzed using the unsignalized intersection methodology of the HCM. For these intersections, the calculation of level of service is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using data collected, describing the intersection configuration and traffic volumes at these locations, the level of service has been calculated. The level of service is determined based on the average intersection delay. The relationship between level of service and delay is different than for signalized intersections.

The levels of service are defined for the various analysis methodologies as follows:

LOS	Intersection LOS Criteria	
	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	0.00 - 10.00	0.00 - 10.00
B	10.01 - 20.00	10.01 - 15.00
C	20.01 - 35.00	15.01 - 25.00
D	35.01 - 55.00	25.01 - 35.00
E	55.01 - 80.00	35.01 - 50.00
F	>80.01	>50.01

For this study, the HCM level of service grades will be determined utilizing the HCM 6th Edition Methodology and the Synchro analysis software.

All analysis parameters utilized in this analysis are in accordance with the City of Corona Traffic Study Guidelines.

Existing conditions peak hour factors have been calculated based upon the traffic counts collected at the study area intersections. Existing peak hour factors have been used for all scenarios.

2.2 Roadway Segment Level of Service Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segment operation and is based on the daily capacity of the roadway segment and the daily volume of traffic using the roadway segment.

Study roadway segment LOS and operation is evaluated utilizing the volume to capacity (V/C) methodology. The level of service is determined based on the numerical ratio obtained by dividing the daily traffic volume of the roadway segment by its daily capacity based on the County of Riverside roadway capacity values and the roadway classifications per the City of Corona General Plan for each segment.

The V/C ratio methodology describes the operation of a roadway segment using a range of LOS from LOS A to LOS F, based on the corresponding ranges as shown in the table below.

Roadway Volume-to-Capacity Ranges & LOS

LOS	Volume-to-Capacity Ratio
A	0.00 – 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	> 1.00

The following roadway capacity values are utilized based on the City of Corona Traffic Study Guidelines:

City of Corona Roadway Segment Daily Capacities

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT) Service Level E
Major Arterial	4	35,900
Secondary Arterial	4	25,900
Collector	2	13,000
Local	2	13,000

The County of Riverside TIA Guidelines do not provide roadway capacities for roadway segments classified as local streets. Therefore, the Roadway Segment Level of Service Analysis for local streets assumes the roadway capacities of collector streets.

2.3 Level of Service Performance Criteria & Thresholds of Significance

City of Corona Study Intersections:

The acceptable Level of Service (LOS) for intersections within the City of Corona is LOS C or better for local intersections in residential/industrial areas, and LOS D or better for collector and arterial intersections.

Since all study intersections evaluated in the report are intersections of roadways with Green River Road and Foothill Parkway this study utilizes LOS D as the level of service standard for the study intersections evaluated as part of this report.

Per the City of Corona Traffic Impact Study Guidelines, any intersection operating at a deficient LOS will be considered impacted and would require mitigations to achieve acceptable operations.

City of Corona Study Roadway Segments:

The acceptable Level of Service (LOS) for roadway segments within the City of Corona and Riverside County is LOS C or better.

2.4 Vehicle Miles Traveled (VMT) Performance Criteria & Thresholds of Significance

Senate Bill (SB) 743 mandates that VMT replace LOS as the transportation metric under CEQA. As a result, the City of Corona updated their TIA Guidelines to reflect VMT analysis for CEQA documents. A key element of SB 743, signed in 2013, is the elimination of automobile delay and LOS as the sole basis of determining CEQA impacts. The most recent CEQA guidelines, released in December 2018, recommend VMT as the most appropriate measure of project transportation impacts. However, SB 743 does not prevent a city or county from continuing to analyze delay or LOS as part of other plans (i.e., the general plan), studies, or ongoing network monitoring.

To address and evaluate the potential VMT impacts associated with the proposed project, a detailed VMT model run has been prepared as part of this report.

3.0 Existing Traffic Volumes & Circulation System

This section provides a discussion of existing study area conditions and traffic volumes.

3.1 Existing Traffic Controls & Intersection Geometrics

Exhibit 3-1 identifies the existing roadway conditions for the study area roadways. The number of through traffic lanes for existing roadways and the existing intersection controls are identified.

3.2 Existing Conditions Traffic Volumes

Due to the COVID-19 pandemic, collection of new and valid traffic count data was not feasible. As a result, this traffic study utilizes pre-pandemic traffic counts collected in 2019 for the study area. The existing 2021 traffic volumes have been derived after applying a two percent (2%) growth rate for two (2) years upon the turning movement counts originally observed in 2019.

Existing (2021) conditions intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts taken in 2019 and adjusted to 2021 by application of growth rate. The AM peak hour traffic volumes were determined by counting the three-and-a-half-hour period between 5:30 AM and 9:00 AM. Similarly, the PM peak hour traffic volumes were identified by counting the three-hour period between 3:30 PM and 6:30 PM. The traffic count worksheets are included in Appendix A.

Existing (2021) traffic volumes for the study area intersections are shown on Exhibit 3-2.

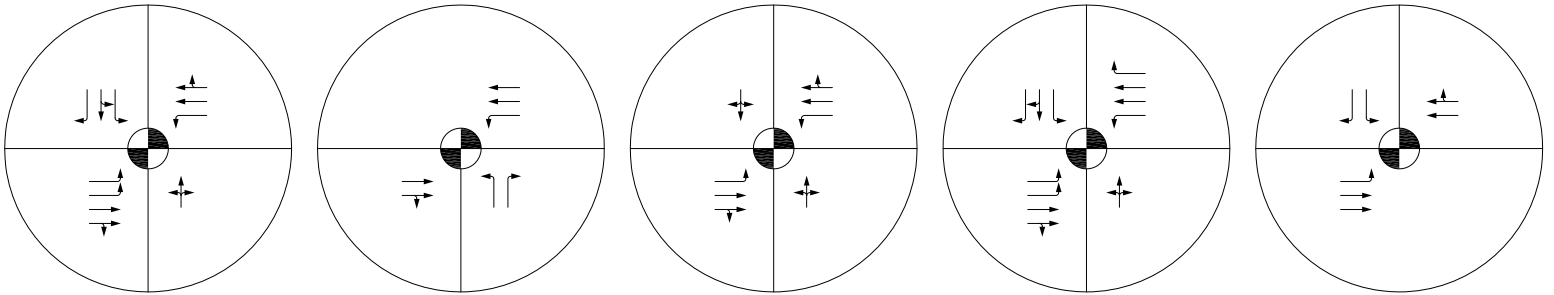
3.3 City of Corona General Plan Circulation Element

Exhibit 3-3 shows the City of Corona General Plan Circulation Element.

Exhibit 3-4 shows the City of Corona General Plan Roadway Cross Sections.

Exhibit 3-5 shows the City of Corona Bicycle Plan.

Existing Lane Geometry and Traffic Controls



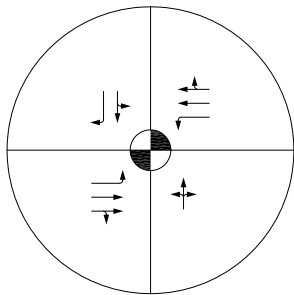
1. Serfas Club Drive (NS) & Green River Road (EW)

2. Montana Ranch Road (NS) & Green River Road (EW)

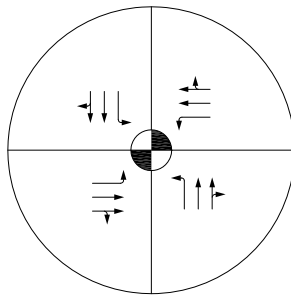
3. Tanglewood Drive (NS) & Green River Road (EW)

4. Paseo Grande (NS) & Green River Road (EW)

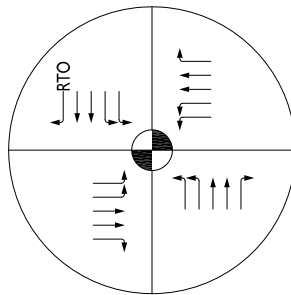
5. Border Avenue (NS) & Green River Road (EW)



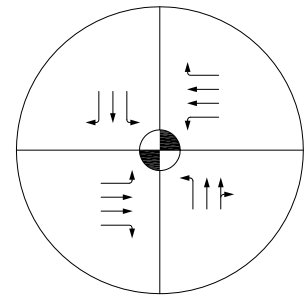
6. Chase Drive (NS) & Foothill Parkway (EW)



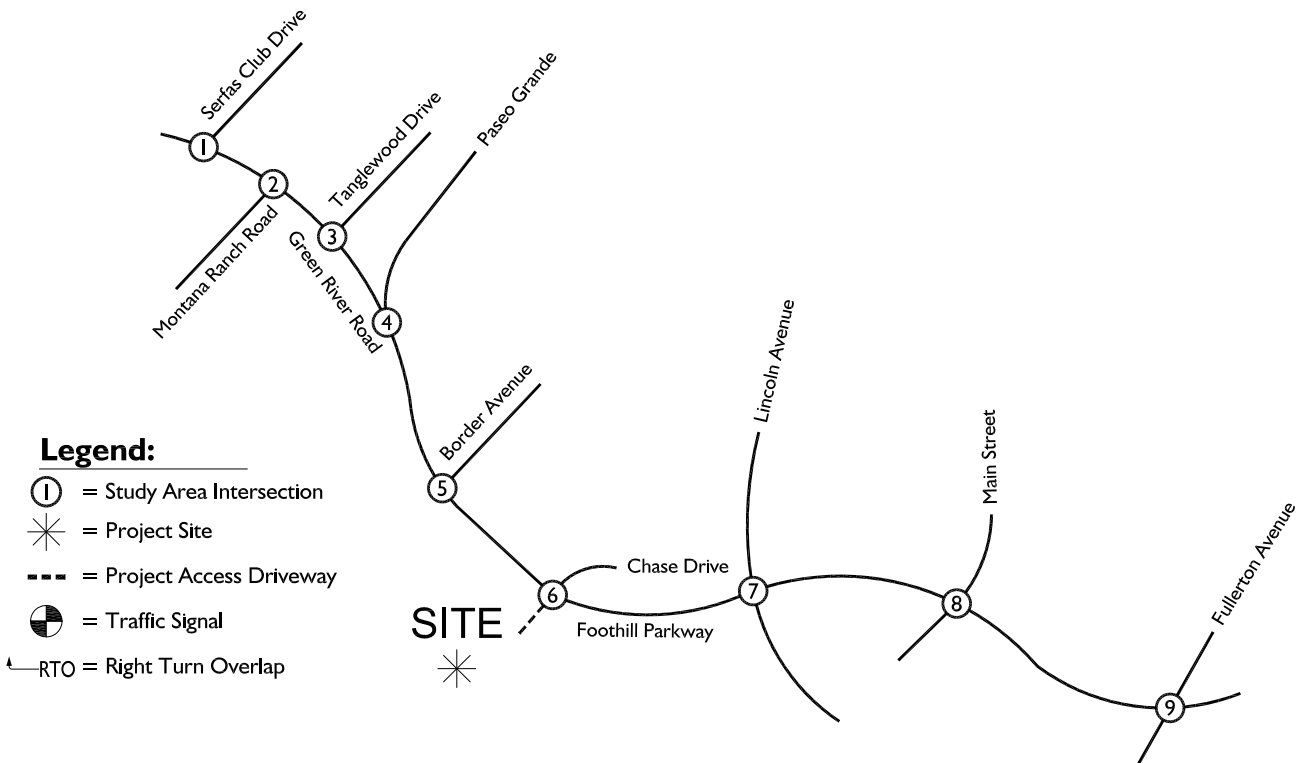
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



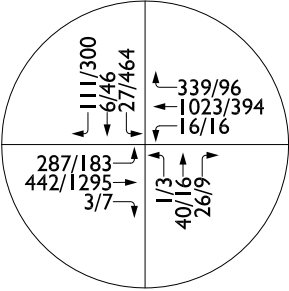
9. Fullerton Avenue (NS) & Foothill Parkway (EW)



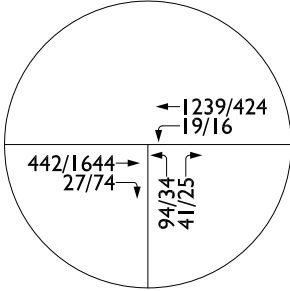
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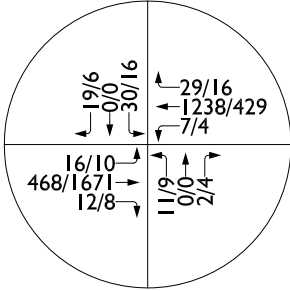
Exhibit 3-2 Existing Traffic Volumes



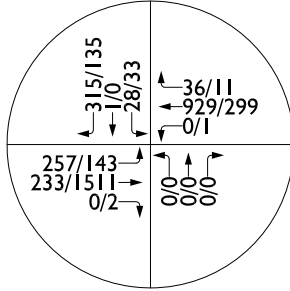
1. Serfas Club Drive (NS) & Green River Road (EW)



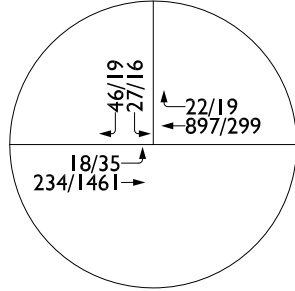
2. Montana Ranch Road (NS) & Green River Road (EW)



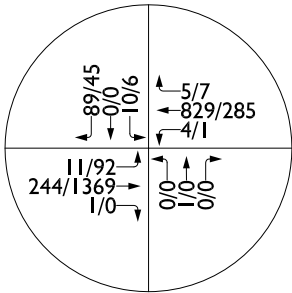
3. Tanglewood Drive (NS) & Green River Road (EW)



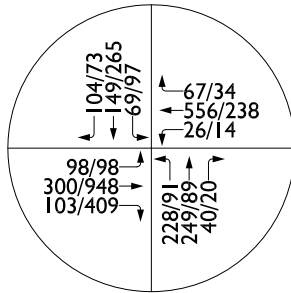
4. Paseo Grande (NS) & Green River Road (EW)



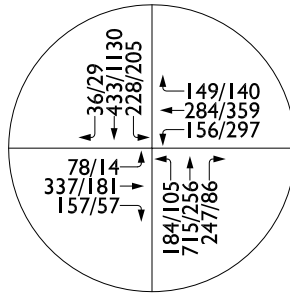
5. Border Avenue (NS) & Green River Road (EW)



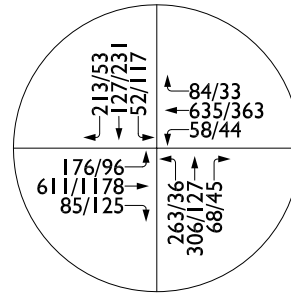
6. Chase Drive (NS) & Foothill Parkway (EW)



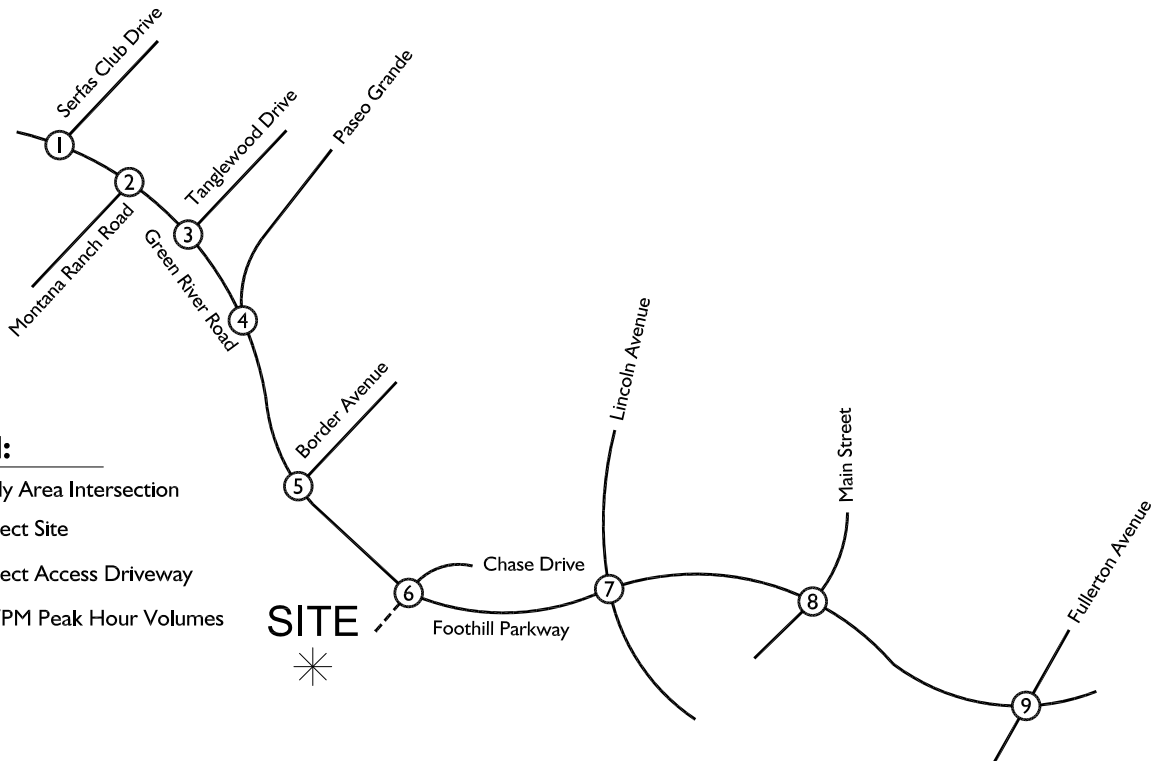
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



9. Fullerton Avenue (NS) & Foothill Parkway (EW)



NOT TO SCALE



Exhibit 3-3
City of Corona Circulation Element

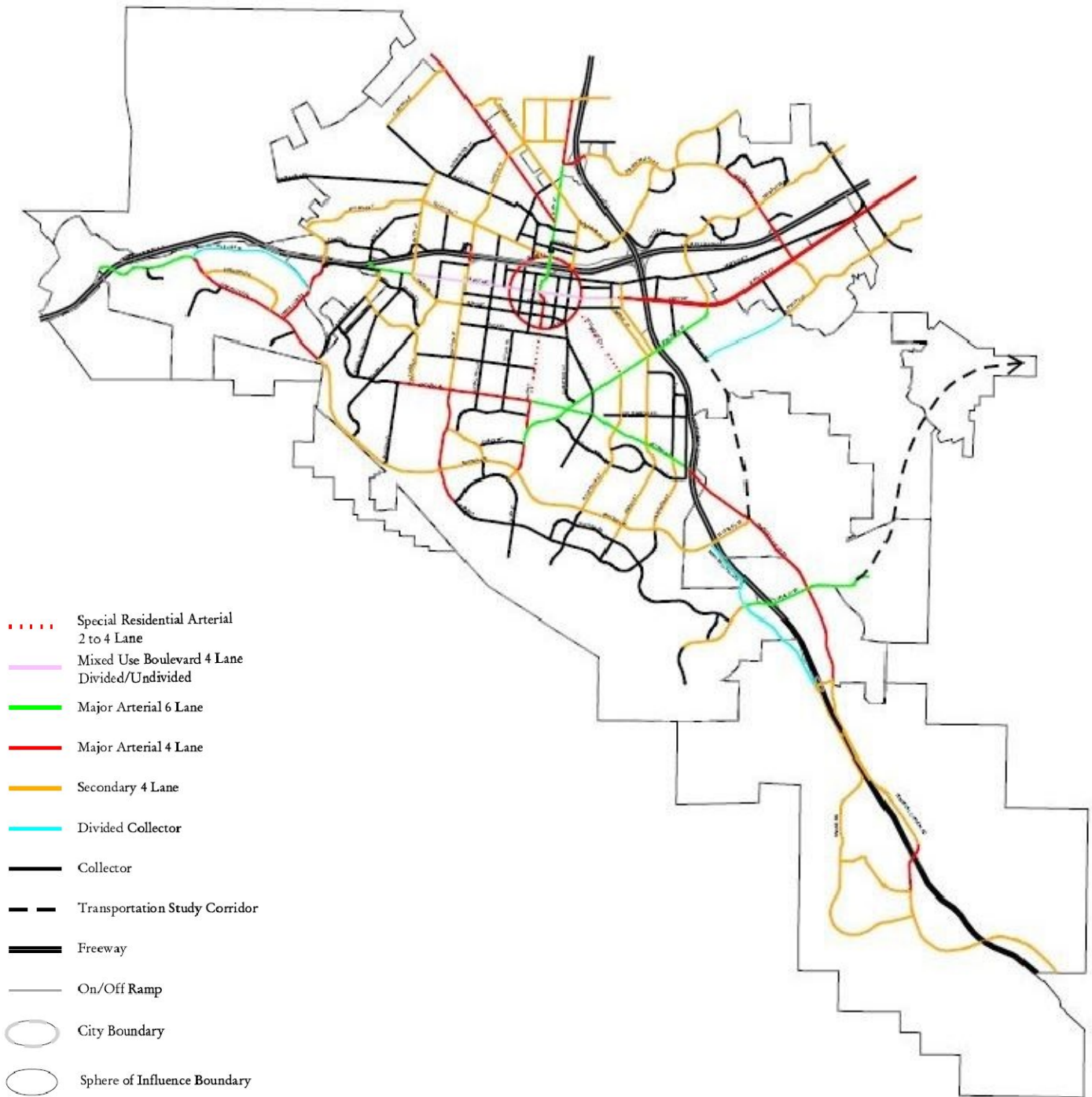
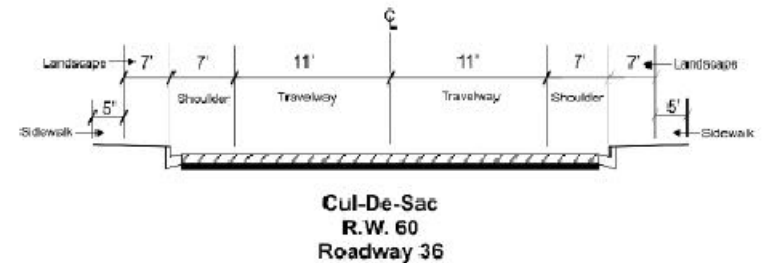
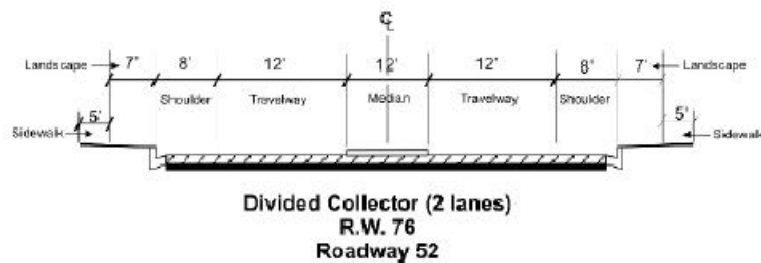
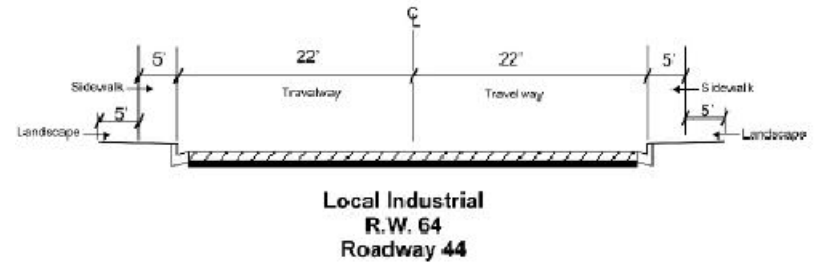
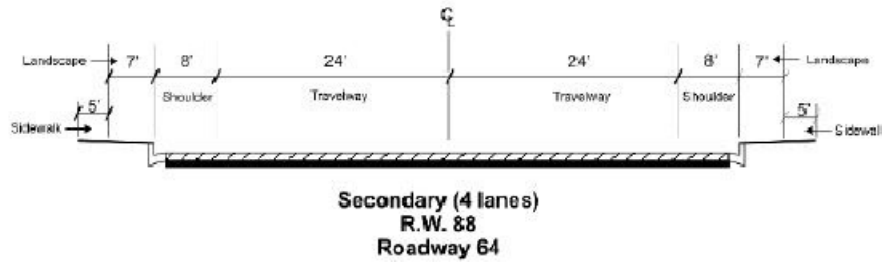
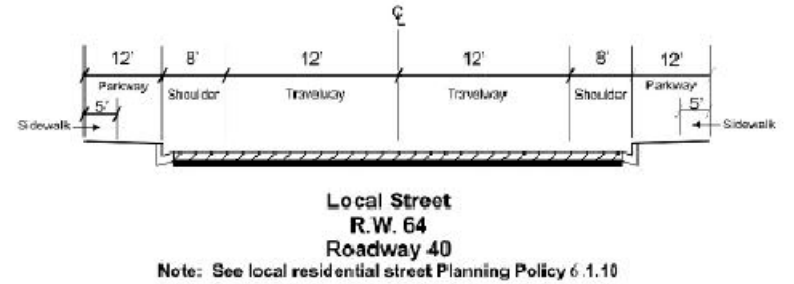
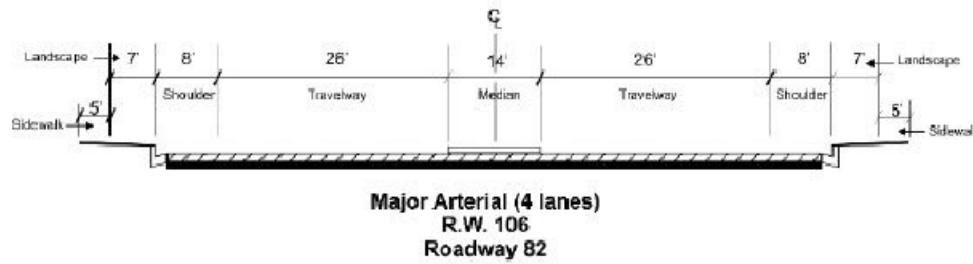
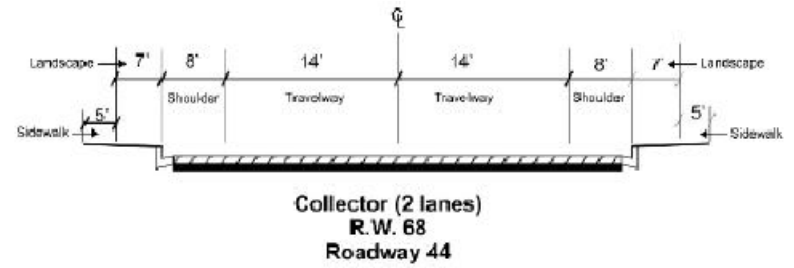
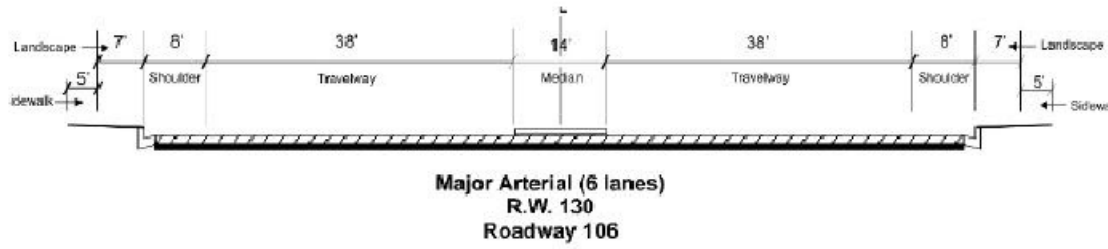
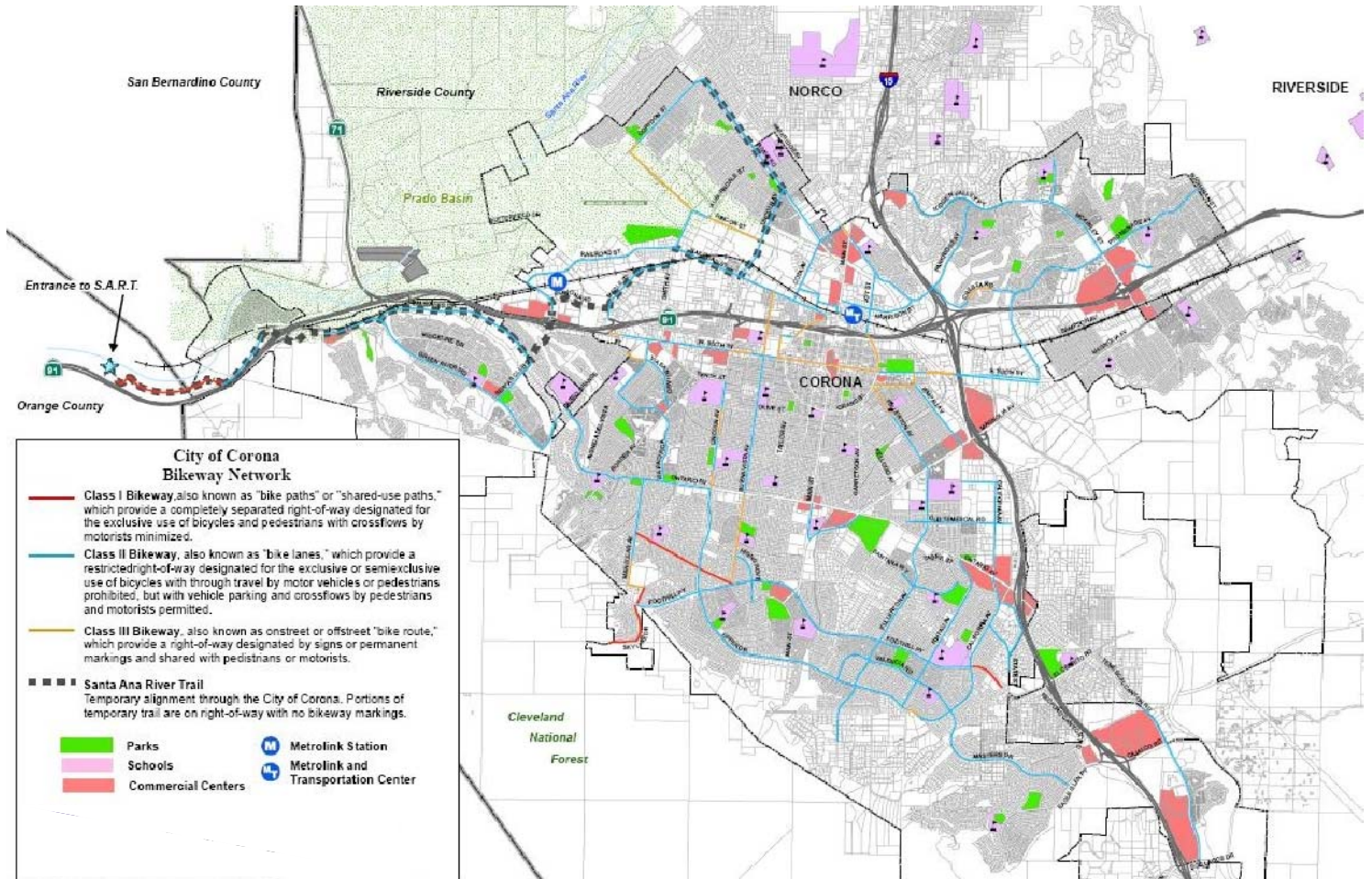


Exhibit 3-4 City of Corona Roadway Cross-Sections





4.0 Projected & Future Traffic Volumes

This section provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

4.1. Project Traffic Conditions

4.1.1 Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development.

Trip generation for the proposed project is determined based on ITE 10th Edition trip generation rates for the proposed land uses as shown in Table 4-1.

Utilizing the ITE trip generation rates shown in Table 4-1, Table 4-2 summarizes the daily and peak hour trip generation for the proposed project.

As shown in Table 4-2, after accounting for the applicable pass-by adjustments, the proposed project is forecast to generate approximately 2,600 daily trips, including approximately 159 trips during the AM peak hour, and approximately 212 trips during the PM peak hour.

4.1.2 Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project. Trip distribution is heavily influenced by the geographical location of the site, the location of retail, employment, recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways within the community.

Forecast trip distribution for the proposed project has been developed through discussions with the City during the scoping process.

Exhibit 4-1 shows the trip distribution for the proposed project.

4.1.3 Modal Split

Modal split denotes the proportion of traffic generated by a project that would use any of the transportation modes, namely buses, cars, bicycles, motorcycles, trains, carpools, etc. The traffic reducing potential of public transit and other modes is significant. However, the traffic projections in this study are conservative in that public transit and alternative transportation may be able to reduce the traffic volumes, but, no modal split reduction is applied to the projections. With the implementation of transit service and provision of alternative transportation ideas and incentives, the automobile traffic demand can be reduced significantly.

4.1.4 Project Peak Hour Traffic Volumes/Assignment

The assignment of traffic from the project site to the adjoining roadway system has been based upon the project's trip generation, trip distribution, and proposed arterial highway and local street systems that this traffic study assumes would be in place by the time of occupancy of the site.

Project traffic volumes are shown on Exhibit 4-2.

4.2 Existing Plus Project Conditions Traffic Volumes

Existing Plus Project Conditions traffic volumes are derived by adding the project traffic volumes shown in Exhibit 4-2 to the existing traffic volumes shown in Exhibit 3-2.

Existing Plus Project Conditions traffic volumes are shown in Exhibit 4-3.

4.3 Background Traffic

4.3.1 Method of Projection

To assess future conditions, project traffic is combined with existing traffic, area-wide growth, and cumulative projects' traffic.

For Project Opening Year (2022) conditions, to account for area wide/ambient growth in the study area, an annual growth rate of two percent (2%) has been applied to existing (2021) traffic volumes over a one-year period, as directed by City Staff.

4.3.2 Cumulative Projects Traffic

Information on future projects in the vicinity of study area has been obtained from the City of Corona staff for inclusion in this analysis and shown in Table 4-3.

“Probable future projects” include projects that have been filed with the City but are not yet approved or projects that the City reasonably anticipates will be submitted in the foreseeable future.

Table 4-3 shows the proposed land uses for the nearby cumulative projects provided by the City staff.

Exhibit 4-4 shows the location of the cumulative projects.

Table 4-3 also shows the peak hour and daily trip generation for the cumulative projects.

Cumulative Projects traffic volumes are shown on Exhibit 4-5.

In reality, some of the cumulative projects may be downsized or may not be developed by Project Opening Year (2022). In addition, many of the related projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associated with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the related projects.

Therefore, the cumulative analyses set forth below are conservative and could result in greater impacts than actually anticipated. Additionally, the analysis utilizes a growth rate of two (2) percent per year for Project Opening Year (2022) conditions, which would already capture and account for most projects in the area. The growth rate methodology is considered conservative since it is applied to all movements of the study intersections.

4.4 Project Opening Year (2022) with Background Traffic Conditions Traffic Volumes

Project Opening Year (2022) with Background Traffic Conditions traffic volumes consist of existing traffic volumes and a 2% growth rate (to account for the one year of annual growth at 2%) as well as the traffic associated with cumulative projects in year 2022 as discussed in Section 4.3.2.

Project Opening Year (2022) with Background Traffic Conditions traffic volumes does not include proposed project traffic.

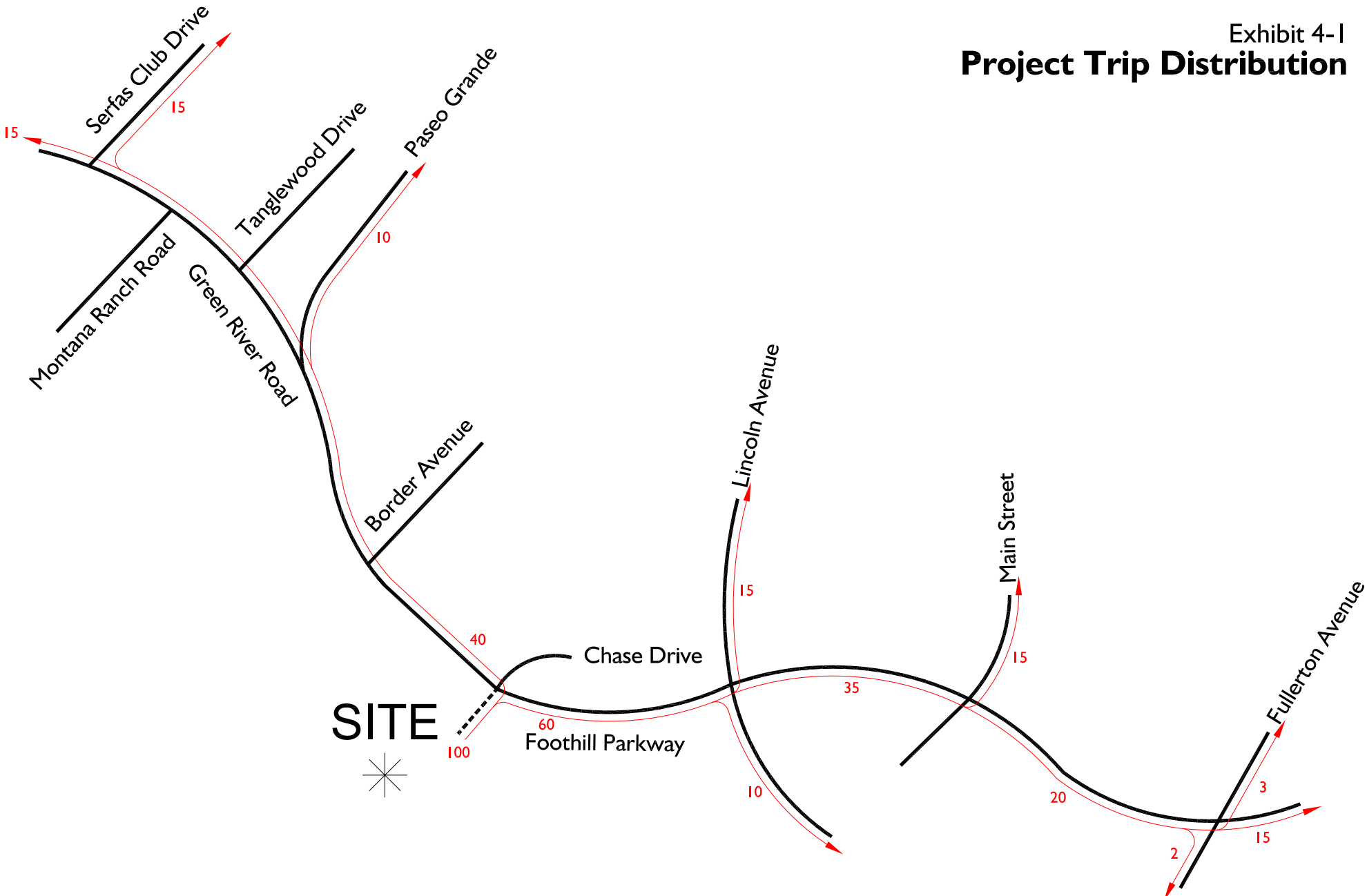
Project Opening Year (2022) with Background Traffic Conditions traffic volumes are shown on Exhibit 4-6.

4.5 Project Opening Year (2022) with Background Traffic and Proposed Project Conditions Traffic Volumes

Project Opening Year (2022) with Background Traffic and Proposed Project Conditions traffic volumes consist of existing traffic volumes, a 2% growth rate (to account for the one year of annual growth at 2%), the traffic associated with cumulative projects in year 2022 as discussed in Section 4.3.2, and proposed project traffic.

Project Opening Year (2022) with Background Traffic and Proposed Project Conditions traffic volumes are shown on Exhibit 4-7.

Exhibit 4-1
Project Trip Distribution

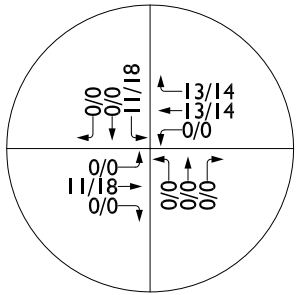


Legend:

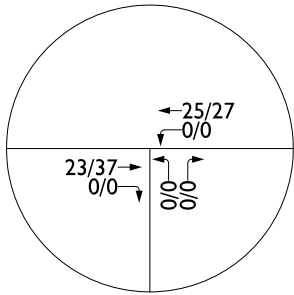
- 10 = Percent to/from Project
- = Project Driveway



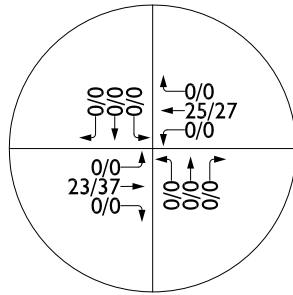
Exhibit 4-2 Project Traffic Volumes



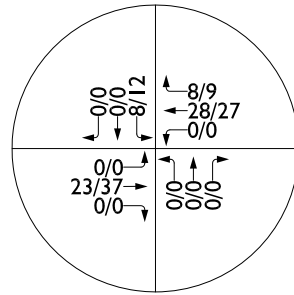
1. Serfas Club Drive (NS) & Green River Road (EW)



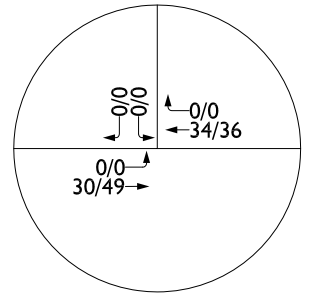
2. Montana Ranch Road (NS) & Green River Road (EW)



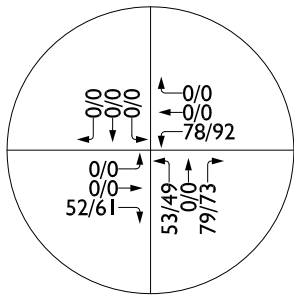
3. Tanglewood Drive (NS) & Green River Road (EW)



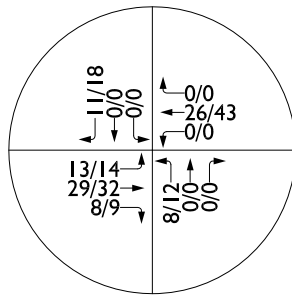
4. Paseo Grande (NS) & Green River Road (EW)



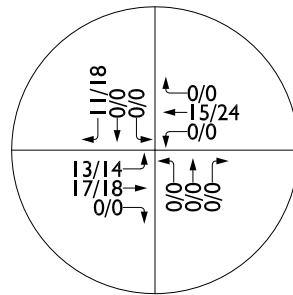
5. Border Avenue (NS) & Green River Road (EW)



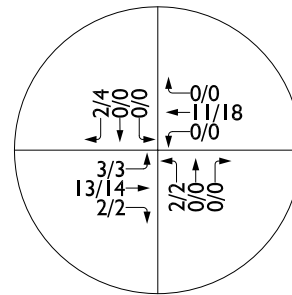
6. Chase Drive (NS) & Foothill Parkway (EW)



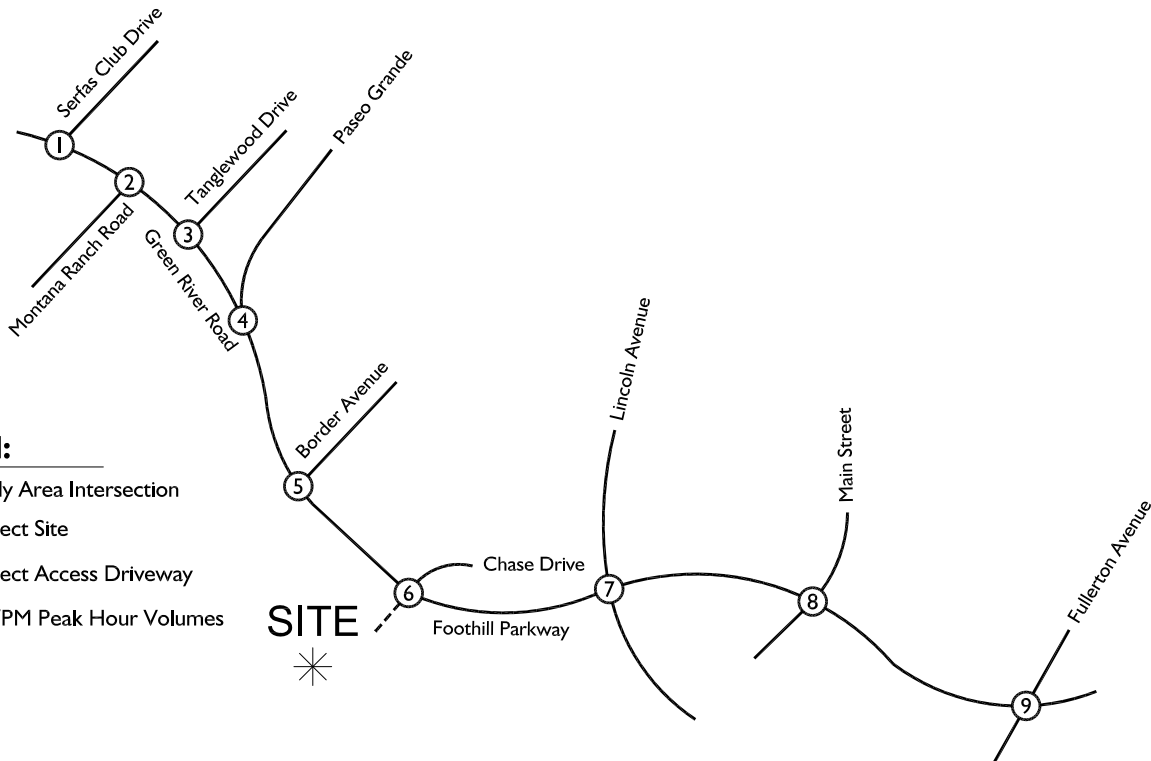
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



9. Fullerton Avenue (NS) & Foothill Parkway (EW)



Legend:

① = Study Area Intersection

* = Project Site

--- = Project Access Driveway

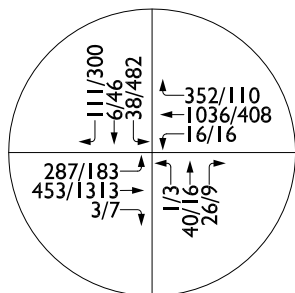
10/20 = AM/PM Peak Hour Volumes

SITE

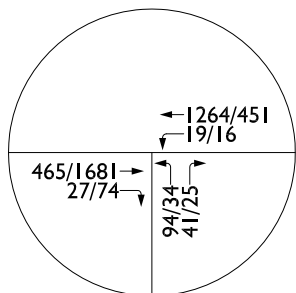
NOT TO SCALE



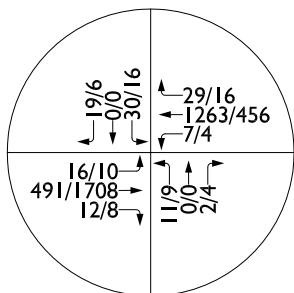
Existing Plus Project Traffic Volumes



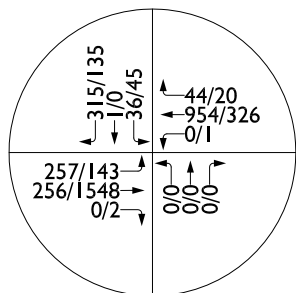
1. Serfas Club Drive (NS) & Green River Road (EW)



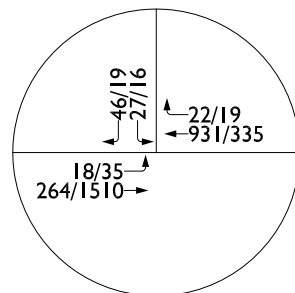
2. Montana Ranch Road (NS) & Green River Road (EW)



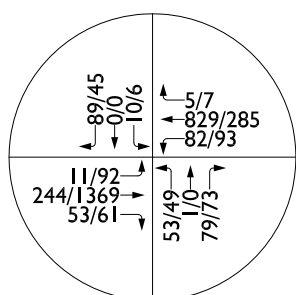
3. Tanglewood Drive (NS) & Green River Road (EW)



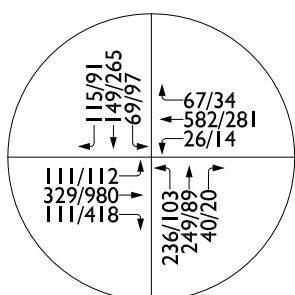
4. Paseo Grande (NS) & Green River Road (EW)



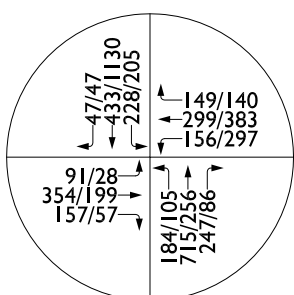
5. Border Avenue (NS) & Green River Road (EW)



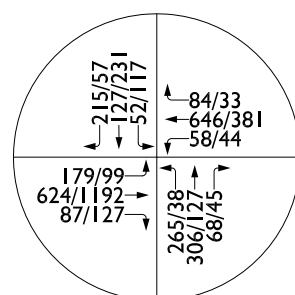
6. Chase Drive (NS) & Foothill Parkway (EW)



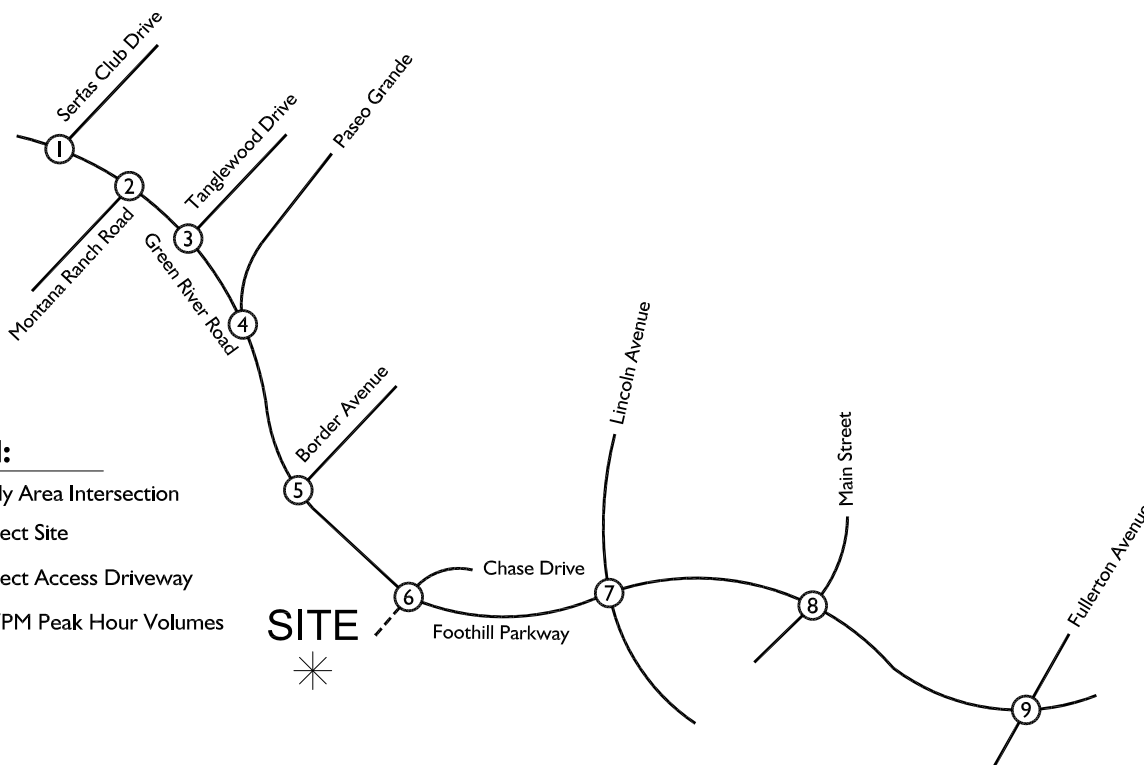
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



9. Fullerton Avenue (NS) & Foothill Parkway (EW)



Legend:

- ① = Study Area Intersection
- * = Project Site
- = Project Access Driveway
- 10/20 = AM/PM Peak Hour Volumes

NOT TO SCALE



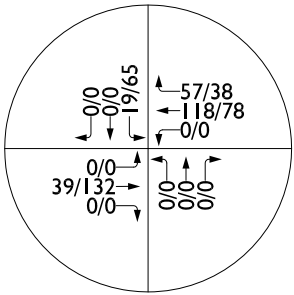
Exhibit 4-4 Cumulative Projects Location Map



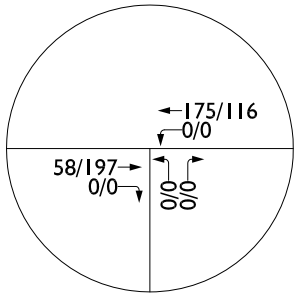
<p>Zone 1:</p> <p>① = PP2018-0002</p>	<p>Zone 3:</p> <p>③ = PM 37588</p> <p>④ = TTM 31135</p>
<p>Zone 2:</p> <p>② = TTM 36544</p>	<p>Zone 4:</p> <p>⑤ = TTM 34760</p> <p>⑥ = TTM 32703</p> <p>⑦ = TTM 32386</p>



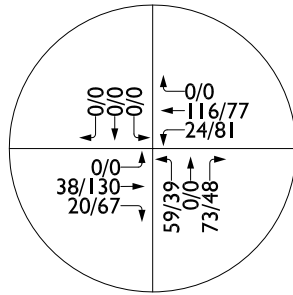
Exhibit 4-5 Cumulative Projects Traffic Volumes



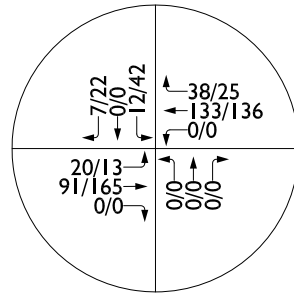
1. Serfas Club Drive (NS) & Green River Road (EW)



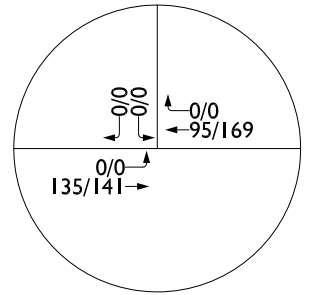
2. Montana Ranch Road (NS) & Green River Road (EW)



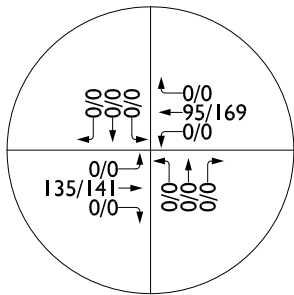
3. Tanglewood Drive (NS) & Green River Road (EW)



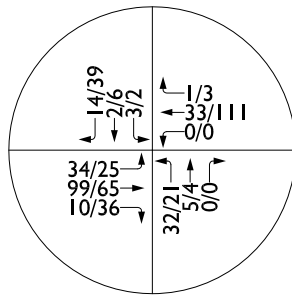
4. Paseo Grande (NS) & Green River Road (EW)



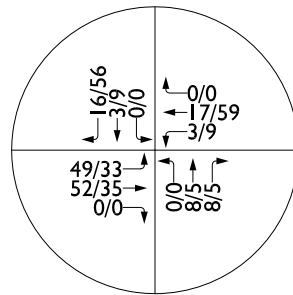
5. Border Avenue (NS) & Green River Road (EW)



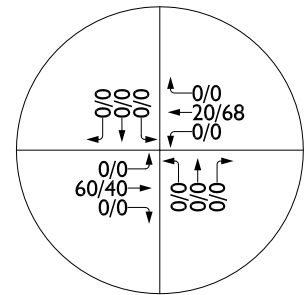
6. Chase Drive (NS) & Foothill Parkway (EW)



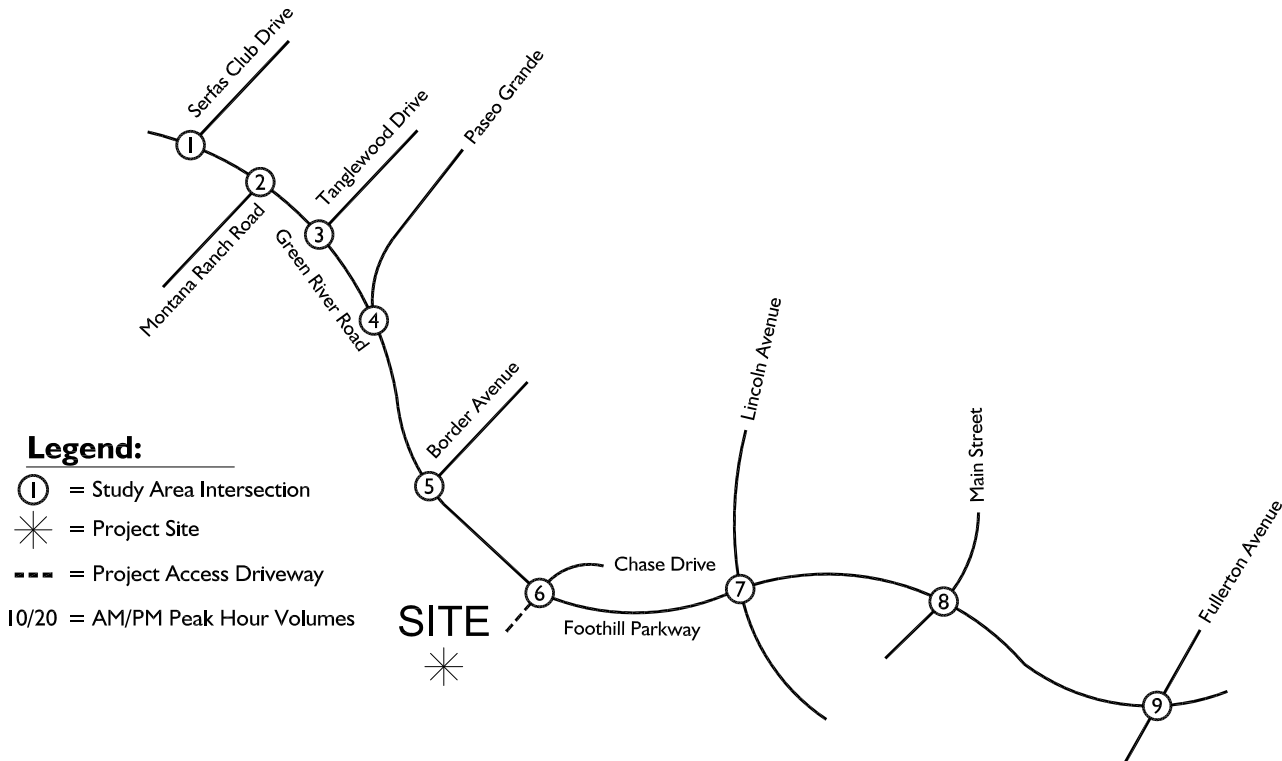
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



9. Fullerton Avenue (NS) & Foothill Parkway (EW)



Legend:

① = Study Area Intersection

* = Project Site

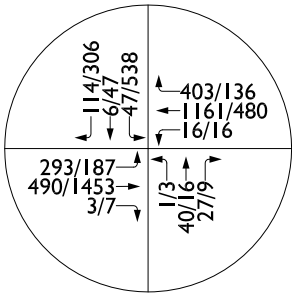
--- = Project Access Driveway

10/20 = AM/PM Peak Hour Volumes

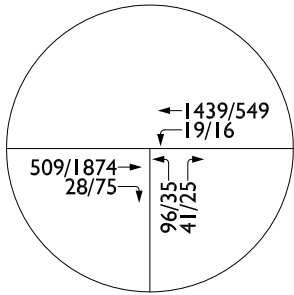
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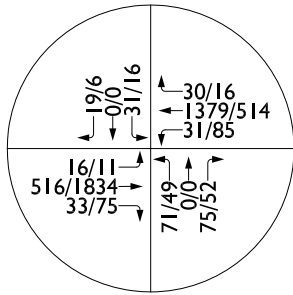
Project Opening Year (2022) with Background Traffic Conditions Traffic Volumes



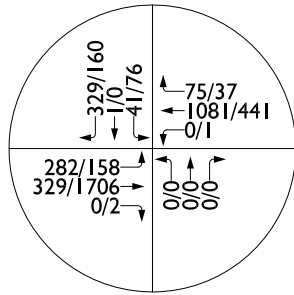
1. Serfas Club Drive (NS) & Green River Road (EW)



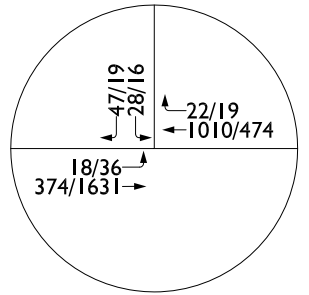
2. Montana Ranch Road (NS) & Green River Road (EW)



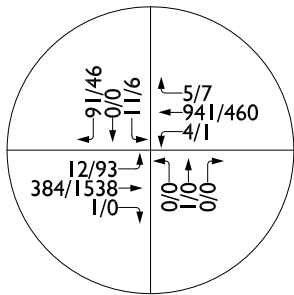
3. Tanglewood Drive (NS) & Green River Road (EW)



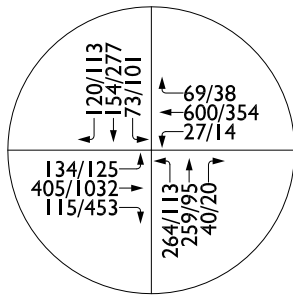
4. Paseo Grande (NS) & Green River Road (EW)



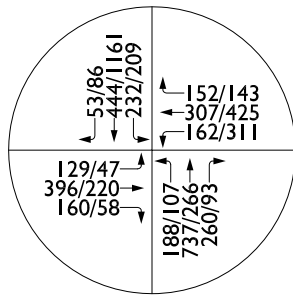
5. Border Avenue (NS) & Green River Road (EW)



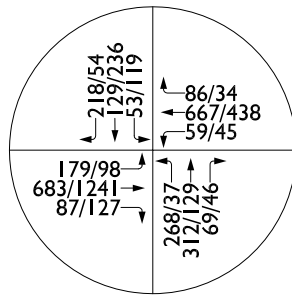
6. Chase Drive (NS) & Foothill Parkway (EW)



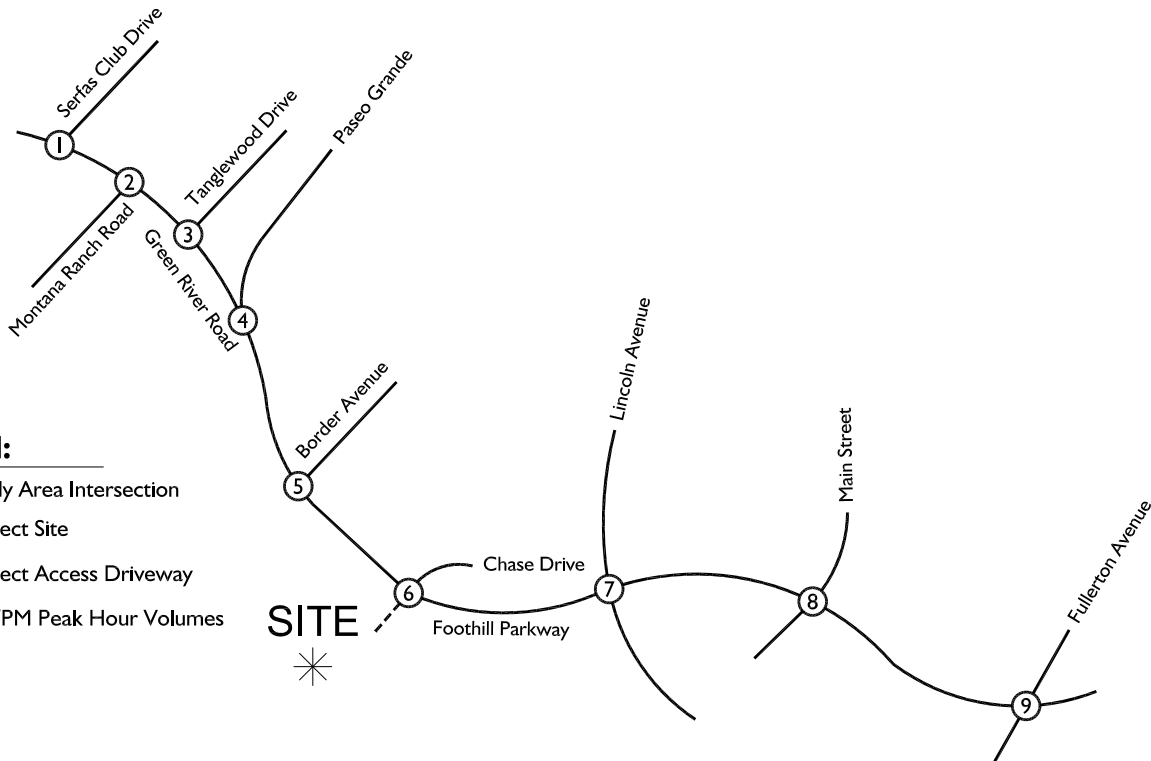
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)

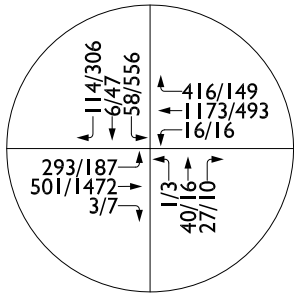


9. Fullerton Avenue (NS) & Foothill Parkway (EW)

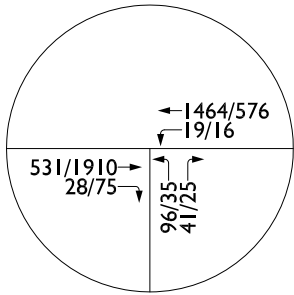


NOT TO SCALE

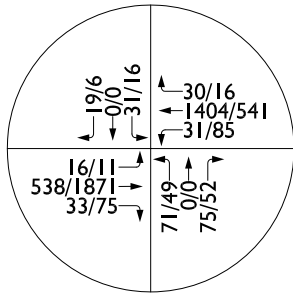
Project Opening Year (2022) with Background Traffic Conditions and Proposed Project Conditions Traffic Volumes



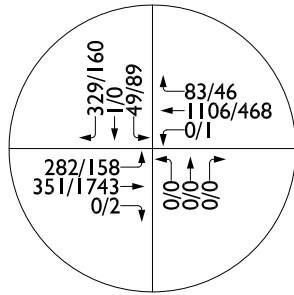
1. Serfas Club Drive (NS) & Green River Road (EW)



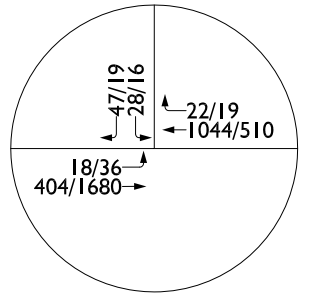
2. Montana Ranch Road (NS) & Green River Road (EW)



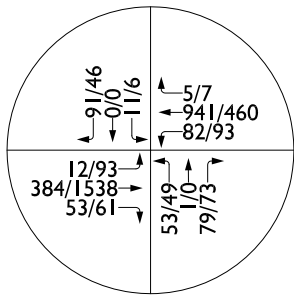
3. Tanglewood Drive (NS) & Green River Road (EW)



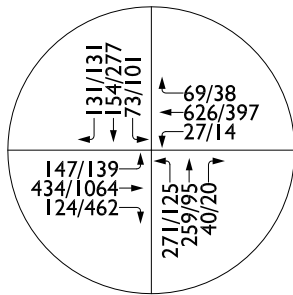
4. Paseo Grande (NS) & Green River Road (EW)



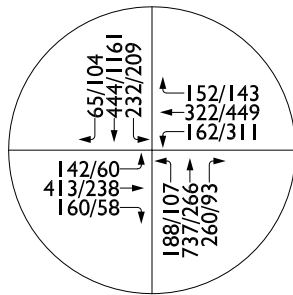
5. Border Avenue (NS) & Green River Road (EW)



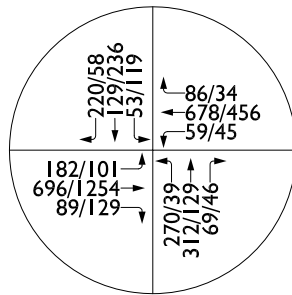
6. Chase Drive (NS) & Foothill Parkway (EW)



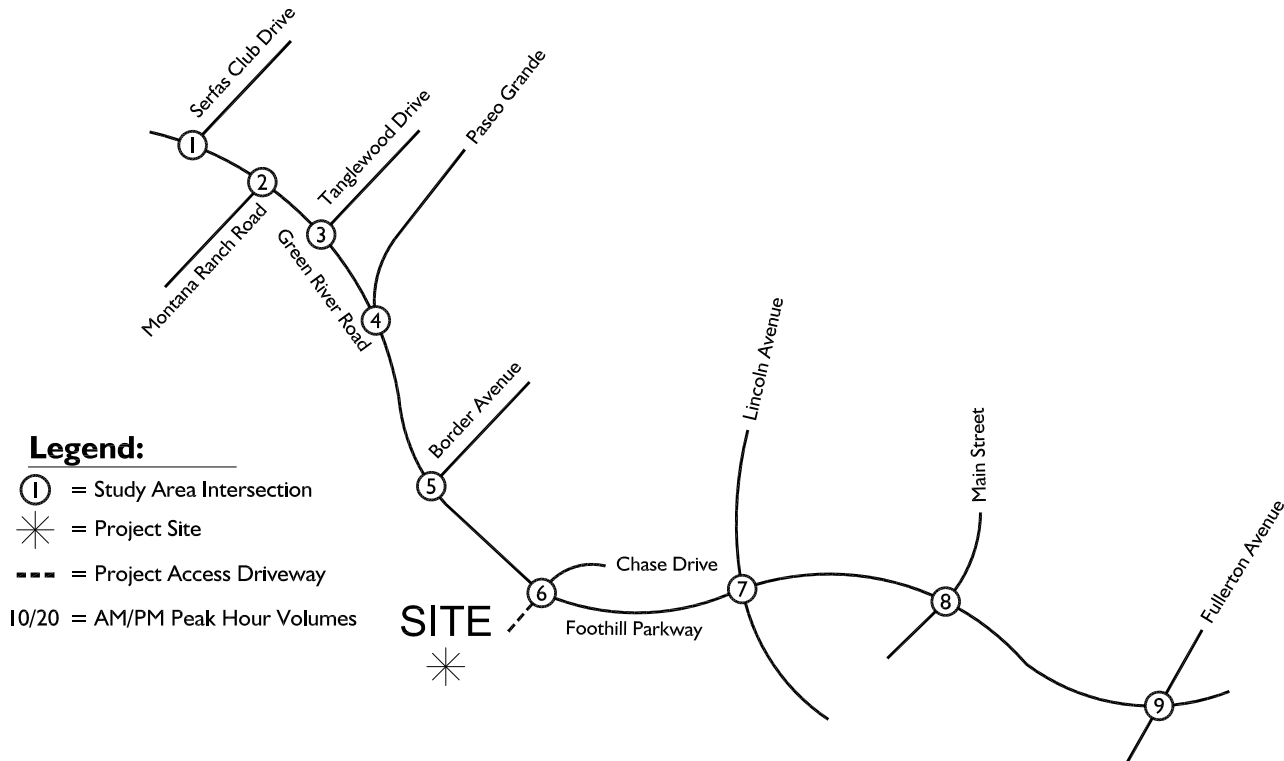
7. Lincoln Avenue (NS) & Foothill Parkway (EW)



8. Main Street (NS) & Foothill Parkway (EW)



9. Fullerton Avenue (NS) & Foothill Parkway (EW)



**Table 4-1
Project ITE Trip Generation Rates¹**

Land Use	Units ²	ITE Code	Weekday						Daily
			AM			PM			
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	DU	220	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Office	TSF	710	1.00	0.16	1.16	0.18	0.97	1.15	9.74
Retail	TSF	820	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Day Spa ^{3,4}	TSF	918	0.60	0.61	1.21	0.25	1.20	1.45	13.30
Drinking Place	TSF	925	0.00	0.00	0.00	7.50	3.86	11.36	113.60
Fast Food Restaurant w/o Drive Thru	TSF	933	15.06	10.04	25.10	14.17	14.17	28.34	346.23
Coffee/Donut Shop w/o Drive Thru ⁵	TSF	936	51.58	49.56	101.14	18.16	18.16	36.31	687.25

¹ Source: 2017 ITE Trip Generation Manual (10th Edition)

² DU = Dwelling Units
TSF = Thousand Square Feet.

³ ITE has not published an average daily trip generation rate for this use. The average daily trip generation rate has been estimated by multiplying the PM peak period trip generation rate by a factor of 10.

⁴ ITE has not published trip generation rates for a Day Spa land use. As a result, trip generation for the proposed Day Spa has been estimated utilizing trip rates for a Hair Salon (ITE Code 918) land use due to its similarity of provided services. Daily trip rates are estimated to be 10 times the PM peak hour rates.

⁵ ITE has not published an average daily trip generation rate for this use. The average daily trip generation rate has been estimated using the average of the AM and PM peak period total trip generation rates multiplied by a factor of 10.

**Table 4-2
Project Trip Generation¹**

Land Use (ITE Code)	Quantity	Units ²	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing - Low-Rise (220)	78	DU	8	28	36	28	16	44	571
Office (710)	4.620	TSF	5	1	6	1	4	5	45
Retail (820)	5.587	TSF	3	2	5	10	11	21	211
ITE Pass-by adjustment (0% AM Peak Hour & 34% PM Peak Hour) ³			0	0	0	-3	-4	-7	-36
<i>Subtotal Retail</i>			3	2	5	7	7	14	175
Day Spa (918)	4.620	TSF	3	3	6	1	6	7	61
Drinking Place (925)	7.550	TSF	0	0	0	57	29	86	860
Fast Food Without Drive Through Restaurant (933)	1.960	TSF	30	20	50	28	28	56	679
ITE Pass-by adjustment (49% AM Peak Hour & 50% PM Peak Hour) ³			-15	-10	-25	-14	-14	-28	-336
<i>Subtotal Fast Food Without Drive Through Restaurant</i>			15	10	25	14	14	28	343
Coffee/Donut Shop w/o Drive Thru (936)	1.568	TSF	81	78	159	28	28	56	1,078
ITE Pass-by adjustment (49% AM Peak Hour & 50% PM Peak Hour) ³			-40	-38	-78	-14	-14	-28	-533
<i>Subtotal Coffee/Donut Shop w/o Drive Thru</i>			41	40	81	14	14	28	545
Total (Without Pass-by Adjustment)			130	132	262	153	122	275	3,505
Total (With Pass-by Adjustment)			75	84	159	122	90	212	2,600

¹ Source: 2017 ITE Trip Generation Manual (10th Edition)

² DU = Dwelling Units

TSF = Thousand Square Feet.

³ Project Trip Generation has implemented ITE- recommended pass-by adjustments for the following land uses: Retail and Fast Food Without Drive Thru Restaurant.

**Table 4-3
Cumulative Projects Trip Generation¹**

ID No.	Jurisdiction	Project Name / Case Number	Land Use	ITE Trip Code	Quantity	Units ²	Peak Hour						Daily
							AM			PM			
							In	Out	Total	In	Out	Total	
TAZ 1													
C1	Corona	PPM2020-0002	Single Family Residential	210	237	DU	44	132	176	148	87	235	2,237
TAZ 1 Total							44	132	176	148	87	235	2,237
TAZ 2													
C2	Corona	TTM 36544	Single Family Residential	210	292	DU	54	162	216	182	107	289	2,756
TAZ 2 Total							54	162	216	182	107	289	2,756
TAZ 3													
C5	Corona	TTM 36608	Single Family Residential	210	4	DU	1	2	3	2	1	3	38
C6	Corona	TTM 36008	Single Family Residential	210	23	DU	4	13	17	14	8	22	217
TAZ 3 Total							5	15	20	16	9	25	255
TAZ 4													
C3	Corona	PM 37588	Single Family Residential	210	2	DU	0	1	1	1	1	2	19
C4	Corona	TTM 31135	Single Family Residential	210	62	DU	11	34	45	39	23	62	585
TAZ 4 Total							11	35	46	40	24	64	604
TAZ 5													
C7	Corona	TTM 34760	Single Family Residential	210	34	DU	6	19	25	21	12	33	321
C8	Corona	TTM 32703	Single Family Residential	210	13	DU	2	7	9	8	5	13	123
C9	Corona	TTM 32386	Single Family Residential	210	49	DU	9	27	36	31	18	49	463
TAZ 5 Total							17	53	70	60	35	95	907
Total Cumulative Projects Trip Generation							131	397	528	446	262	708	6,759

¹ Cumulative Projects information provided by the City of Corona.

5.0 Study Intersection LOS Analysis

This section provides a discussion on the study intersection peak hour level of service analysis and findings.

5.1 Existing (2021) Conditions Level of Service

Existing (2021) Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 5-1 and are based upon manual peak hour turning movement counts compiled for RK in 2019 after the applying a two percent (2%) growth rate for two (2) years as shown in Exhibit 3-2 and the existing geometry shown in Exhibit 3-1.

As shown in Table 5-1, all study area intersections are currently operating at an acceptable level of service (LOS D or better) during the peak hours for Existing Conditions.

Detailed LOS analysis sheets for Existing Conditions are contained in Appendix B.

5.2 Existing Plus Project Conditions Level of Service

Existing (2021) Plus Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 5-2 and are based upon the Existing Plus Project Conditions traffic volumes shown in Exhibit 4-3.

Existing (2021) Plus Project Conditions assume a dedicated right-turn lane from Foothill Parkway onto Chase Drive to be provided as part of the proposed project.

As shown in Table 5-2, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Existing Plus Project Conditions.

As also shown in Table 5-2, based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Existing Plus Project Conditions.

Detailed LOS analysis sheets for Existing Plus Project Conditions are contained in Appendix C.

5.3 Project Opening Year (2022) with Background Traffic Conditions Level of Service

Project Opening Year (2022) with Background Traffic Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 5-3 and are based upon the Project Opening Year (2022) with Background Traffic Conditions traffic volumes shown in Exhibit 4-6.

As shown in Table 5-3, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Project Opening Year (2022) with Background Traffic Conditions.

Detailed LOS analysis sheets for Project Opening Year (2022) with Background Traffic Conditions are contained in Appendix D.

5.4 Project Opening Year (2022) with Background Traffic and Proposed Project Conditions Level of Service

Project Opening Year (2022) with Background Traffic and Proposed Project Conditions Level of Service (LOS) calculations for the study intersections are shown in Table 5-4 and are based upon the Project Opening Year (2022) with Background Traffic and Proposed Project Conditions traffic volumes shown in Exhibit 4-7.

Project Opening Year (2022) with Background Traffic and Proposed Project Conditions assume a dedicated right-turn lane from Foothill Parkway onto Chase Drive to be provided as part of the proposed project.

As shown in Table 5-4, all study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.

As also shown in Table 5-4, based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impact at the study intersections for Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.

Detailed LOS analysis sheets for Project Opening Year (2022) with Background Traffic and Proposed Project Conditions are contained in Appendix E.

Table 5-1
Study Intersection LOS Analysis Summary
Existing (2021) Conditions

Intersection		Traffic Control ³	Delay (Secs) ^{1,2}		Level of Service	
			AM	PM	AM	PM
1.	Serfas Club Drive / Green River Road	TS	41.6	37.5	D	D
2.	Montana Ranch Road / Green River Road	TS	13.1	18.0	B	B
3.	Tanglewood Drive / Green River Road	TS	16.5	15.4	B	B
4.	Paseo Grande / Green River Road - Foothill Parkway	TS	37.1	31.8	D	C
5.	Border Avenue / Green River Road	TS	15.9	13.8	B	B
6.	Chase Drive - Project Driveway / Foothill Parkway	TS	13.2	7.8	B	A
7.	Lincoln Avenue / Foothill Parkway	TS	30.9	31.6	C	C
8.	Main Street / Foothill Parkway	TS	23.2	22.6	C	C
9.	Fullerton Avenue / Foothill Parkway	TS	44.1	27.2	D	C

¹ Deficient operation shown in **Bold**.

² HCM Analysis Software: Synchro, Version 10.0. Per the Highway Capacity Manual 6th edition, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

Table 5-2
Study Intersection LOS Analysis Summary
Existing (2021) Plus Project Conditions

Intersection		Traffic Control ³	Existing (2021) Conditions				Forecast Existing (2021) Plus Project Conditions					
			Delay (Secs) ^{1,2}		Level of Service		Delay (Secs) ^{1,2}		Level of Service		Significant Impact?	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Serfas Club Drive / Green River Road	TS	41.6	37.5	D	D	43.2	38.2	D	D	No	No
2.	Montana Ranch Road / Green River Road	TS	13.1	18.0	B	B	13.3	18.7	B	B	No	No
3.	Tanglewood Drive / Green River Road	TS	16.5	15.4	B	B	16.8	15.9	B	B	No	No
4.	Paseo Grande / Green River Road - Foothill Parkway	TS	37.1	31.8	D	C	37.5	32.5	D	C	No	No
5.	Border Avenue / Green River Road	TS	15.9	13.8	B	B	16.3	14.3	B	B	No	No
6.	Chase Drive - Project Driveway / Foothill Parkway	TS	13.2	7.8	B	A	16.2	19.6	B	C	No	No
7.	Lincoln Avenue / Foothill Parkway	TS	30.9	31.6	C	C	32.9	33.2	C	C	No	No
8.	Main Street / Foothill Parkway	TS	23.2	22.6	C	C	23.3	23.0	C	C	No	No
9.	Fullerton Avenue / Foothill Parkway	TS	44.1	27.2	D	C	45.3	27.5	D	C	No	No

¹ Deficient operation shown in **Bold**.

² HCM Analysis Software: Synchro, Version 10.0. Per the Highway Capacity Manual 6th Edition, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

Table 5-3
Study Intersection LOS Analysis Summary
Project Opening Year (2022) with Background Traffic Conditions

Intersection		Traffic Control ³	Delay (Secs) ^{1,2}		Level of Service	
			AM	PM	AM	PM
1.	Serfas Club Drive / Green River Road	TS	53.1	41.2	D	D
2.	Montana Ranch Road / Green River Road	TS	15.3	26.1	B	C
3.	Tanglewood Drive / Green River Road	TS	19.6	29.5	B	C
4.	Paseo Grande / Green River Road - Foothill Parkway	TS	44.8	37.7	D	D
5.	Border Avenue / Green River Road	TS	17.1	16.0	B	B
6.	Chase Drive - Project Driveway / Foothill Parkway	TS	13.1	7.7	B	A
7.	Lincoln Avenue / Foothill Parkway	TS	37.2	37.9	D	D
8.	Main Street / Foothill Parkway	TS	24.4	23.9	C	C
9.	Fullerton Avenue / Foothill Parkway	TS	47.5	28.7	D	C

¹ Deficient operation shown in **Bold**.

² HCM Analysis Software: Synchro, Version 10.0. Per the Highway Capacity Manual 6th Edition, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

Table 5-4
Study Intersection LOS Analysis Summary
Project Opening Year (2022) with Background Traffic and Proposed Project Conditions

Intersection		Traffic Control ³	Project Opening Year (2022) with Background Traffic Conditions				Project Opening Year (2022) with Background Traffic and Proposed Project Conditions					
			Delay (Secs) ^{1,2}		Level of Service		Delay (Secs) ^{1,2}		Level of Service		Significant Impact?	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Serfas Club Drive / Green River Road	TS	53.1	41.2	D	D	54.1	42.1	D	D	No	No
2.	Montana Ranch Road / Green River Road	TS	15.3	26.1	B	C	15.7	28.4	B	C	No	No
3.	Tanglewood Drive / Green River Road	TS	19.6	29.5	B	C	20.2	31.8	C	C	No	No
4.	Paseo Grande / Green River Road - Foothill Parkway	TS	44.8	37.7	D	D	46.4	39.5	D	D	No	No
5.	Border Avenue / Green River Road	TS	17.1	16.0	B	B	17.7	17.1	B	B	No	No
6.	Chase Drive - Project Driveway / Foothill Parkway	TS	13.1	7.7	B	A	16.4	20.7	B	C	No	No
7.	Lincoln Avenue / Foothill Parkway	TS	37.2	37.9	D	D	39.9	41.3	D	D	No	No
8.	Main Street / Foothill Parkway	TS	24.4	23.9	C	C	24.7	24.5	C	C	No	No
9.	Fullerton Avenue / Foothill Parkway	TS	47.5	28.7	D	C	49.2	29.1	D	C	No	No

¹ Deficient operation shown in **Bold**.

² HCM Analysis Software: Synchro, Version 10.0. Per the Highway Capacity Manual 6th Edition, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

6.0 Roadway Segment LOS Analysis

This section provides a discussion on the study roadway segment level of service analysis and findings.

Tables 6-1 and 6-2 summarize the study roadway segment analysis results for Existing Conditions and Project Opening Year (2021) Conditions, respectively.

As shown in Tables 6-1 and 6-2, all study roadway segments are currently operating at an acceptable level of service (LOS C or better) and are forecast to continue to operate at an acceptable level of service for all scenarios.

**Table 6-1
Study Roadway Segment Analysis Summary
Existing Conditions & Existing Plus Project Conditions**

Study Roadway Segment	General Plan		No. of Lanes		Daily Capacity		Daily Traffic Volume			V/C Ratio		LOS	
	Classification	LOS E Capacity	Existing Conditions	Existing Plus Project Conditions	Existing Conditions	Existing Plus Project Conditions	Existing Conditions	Project ADT Assignment	Existing Plus Project Conditions	Existing Conditions	Existing Plus Project Conditions	Existing Conditions	Existing Plus Project Conditions
1. Green River Road West of Serfas Club Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	18,221	390	18,611	0.51	0.52	A	A
2. Serfas Club Drive North of Green River Road	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	8,618	390	9,008	0.24	0.25	A	A
3. Green River Road East of Serfas Club Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	18,662	780	19,442	0.52	0.54	A	A
4. Montana Ranch Road South of Green River Road	Collector (2 Lanes)	13,000	2	2	13,000	13,000	1,485	0	1,485	0.11	0.11	A	A
5. Green River Road East of Montana Ranch Road	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	17,537	780	18,317	0.49	0.51	A	A
6. Tanglewood Drive ^{1,2} North of Green River Road	Local (2 Lanes)	13,000	2	2	13,000	13,000	639	0	639	0.05	0.05	A	A
7. Tanglewood Drive ^{1,2} South of Green River Road	Local (2 Lanes)	13,000	2	2	13,000	13,000	257	0	257	0.02	0.02	A	A
8. Green River Road East of Tanglewood Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	17,613	780	18,393	0.49	0.51	A	A
9. Paseo Grande North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	4,316	260	4,576	0.33	0.35	A	A
10. Foothill Parkway East of Paseo Grande	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	13,865	1,040	14,905	0.54	0.58	A	A
11. Border Avenue North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	909	0	909	0.07	0.07	A	A
12. Foothill Parkway East of Border Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	13,388	1,402	14,790	0.52	0.57	A	A
13. Chase Driveway North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	1,197	0	1,197	0.09	0.09	A	A
14. Chase Driveway - Project Access ^{1,2} South of Foothill Parkway	Local (2 Lanes)	13,000	2	2	13,000	13,000	32	3,505	3,537	0.00	0.27	A	A
15. Foothill Parkway East of Chase Drive	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	14,607	2,103	16,710	0.56	0.65	A	B
16. Lincoln Avenue North of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	6,264	390	6,654	0.17	0.19	A	A
17. Lincoln Avenue South of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	7,574	260	7,834	0.21	0.22	A	A
18. Foothill Parkway East of Lincoln Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	10,841	910	11,751	0.42	0.45	A	A
19. Main Street North of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	15,359	390	15,749	0.43	0.44	A	A
20. Main Street South of Foothill Parkway	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	17,204	0	17,204	0.66	0.66	B	B
21. Foothill Parkway East of Main Street	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	17,253	520	17,773	0.67	0.69	B	B
22. Fullerton Avenue North of Foothill Parkway	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	7,268	78	7,346	0.28	0.28	A	A
23. Fullerton Avenue South of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	6,818	52	6,870	0.52	0.53	A	A
24. Foothill Parkway East of Fullerton Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	14,796	390	15,186	0.57	0.59	A	A

Table 6-2
Study Roadway Segment Analysis Summary
Project Opening Year (2022) with Background Traffic without & with Project Conditions

Study Roadway Segment	General Plan		No. of Lanes		Daily Capacity		Daily Traffic Volume					V/C Ratio		LOS	
	Classification	LOS E Capacity	Project Opening Year (2022) with Background Traffic without Project Conditions	Project Opening Year (2022) with Background Traffic with Project Conditions	Project Opening Year (2022) with Background Traffic without Project Conditions	Project Opening Year (2022) with Background Traffic with Project Conditions	Existing Conditions	Cumulative Projects ADT Assignment	Project ADT Assignment	Project Opening Year (2022) with Background Traffic without Project Conditions	Project Opening Year (2022) with Background Traffic with Project Conditions	Project Opening Year (2022) with Background Traffic without Project Conditions	Project Opening Year (2022) with Background Traffic with Project Conditions	Project Opening Year (2022) with Background Traffic without Project Conditions	Project Opening Year (2022) with Background Traffic with Project Conditions
1. Green River Road West of Serfas Club Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	18,221	2,003	390	21,339	21,729	0.59	0.61	A	B
2. Serfas Club Drive North of Green River Road	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	8,618	976	390	10,121	10,511	0.28	0.29	A	A
3. Green River Road East of Serfas Club Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	18,662	2,977	780	22,781	23,561	0.63	0.66	B	B
4. Montana Ranch Road South of Green River Road	Collector (2 Lanes)	13,000	2	2	13,000	13,000	1,485	0	0	1,576	1,576	0.12	0.12	A	A
5. Green River Road East of Montana Ranch Road	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	17,537	2,977	780	21,587	22,367	0.60	0.62	A	B
6. Tanglewood Drive ^{1,2} North of Green River Road	Local (2 Lanes)	13,000	2	2	13,000	13,000	639	0	0	678	678	0.05	0.05	A	A
7. Tanglewood Drive ^{1,2} South of Green River Road	Local (2 Lanes)	13,000	2	2	13,000	13,000	257	2,237	0	2,509	2,509	0.19	0.19	A	A
8. Green River Road East of Tanglewood Drive	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	17,613	3,202	780	21,893	22,673	0.61	0.63	B	B
9. Paseo Grande North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	4,316	976	260	5,556	5,816	0.43	0.45	A	A
10. Foothill Parkway East of Paseo Grande	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	13,865	3,506	1,040	18,219	19,259	0.70	0.74	B	C
11. Border Avenue North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	909	0	0	965	965	0.07	0.07	A	A
12. Foothill Parkway East of Border Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	13,388	2,955	1,402	17,162	18,564	0.66	0.72	B	C
13. Chase Driveway North of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	1,197	0	0	1,270	1,270	0.10	0.10	A	A
14. Chase Driveway - Project Access ^{1,2} South of Foothill Parkway	Local (2 Lanes)	13,000	2	2	13,000	13,000	32	0	3,505	33	3,538	0.00	0.27	A	A
15. Foothill Parkway East of Chase Drive	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	14,607	2,955	2,103	18,456	20,559	0.71	0.79	C	C
16. Lincoln Avenue North of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	6,264	803	390	7,450	7,840	0.21	0.22	A	A
17. Lincoln Avenue South of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	7,574	635	260	8,672	8,932	0.24	0.25	A	A
18. Foothill Parkway East of Lincoln Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	10,841	1,730	910	13,234	14,144	0.51	0.55	A	A
19. Main Street North of Foothill Parkway	Major Arterial (4 Lanes)	35,900	4	4	35,900	35,900	15,359	976	390	17,275	17,665	0.48	0.49	A	A
20. Main Street South of Foothill Parkway	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	17,204	272	0	18,528	18,528	0.72	0.72	C	C
21. Foothill Parkway East of Main Street	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	17,253	1,027	520	19,336	19,856	0.75	0.77	C	C
22. Fullerton Avenue North of Foothill Parkway	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	7,268	0	78	7,712	7,790	0.30	0.30	A	A
23. Fullerton Avenue South of Foothill Parkway	Collector (2 Lanes)	13,000	2	2	13,000	13,000	6,818	0	52	7,235	7,287	0.56	0.56	A	A
24. Foothill Parkway East of Fullerton Avenue	Secondary Arterial (4 Lanes)	25,900	4	4	25,900	25,900	14,796	1,027	390	16,729	17,119	0.65	0.66	B	B

7.0 Vehicles Miles Traveled (VMT) Analysis

This analysis is intended to satisfy the requirements for a VMT analysis established by the City of Corona VMT Analysis Guidelines (January 2019), as well as the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

Background: Senate Bill 743 (SB-743), which was codified in Public Resources Code section 21099, was signed by the Governor in 2013 and directed the Governor’s Office of Planning and Research (OPR) to identify alternative metrics for evaluating transportation impacts under CEQA. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” Recently adopted changes to the CEQA Guidelines in response to Section 21099 include a new section (15064.3) that specifies that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts.

City Guidelines: The City of Corona has prepared VMT Analysis Guidelines in January 2019 to address changes to CEQA pursuant to SB-743 to include VMT analysis methodology and thresholds. Based on the City’s guidelines, the analysis is required to be conducted using the City of Corona General Plan Model (CGPM) using a metric of VMT per Service Population (VMT/SP).

The Guidelines use the following threshold of significance for use as part of the City’s environmental review process under CEQA:

- Would the project increase the total daily vehicle miles traveled per service population (population plus employment) (VMT/SP) above the baseline level for the jurisdiction?
- Would the project cause total daily VMT within the study area to be higher than the No Project alternative under cumulative conditions?

Project Screening: The City of Corona Guidelines states that the thresholds and methodology should be used in conjunction with the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018). The OPR advisory exempts local serving retail projects of up to 50,000 square feet or up to 10,000 square feet of office

space. The Technical Advisory further recommends analyzing each use separately, or simply focusing analysis on the dominant use, and comparing each result to the appropriate threshold.

The proposed project consists of the construction and operation of a mixed-use retail/commercial center and a residential development on approximately 17.02 acres of vacant land. The following land uses are proposed for the development:

- 78 dwelling units of Residential Condominiums;
- 1,568 square feet of Coffee/Donut Shop Without Drive-Thru;
- 5,587 square feet of General Retail use;
- 1,960 square feet of Fast Food Without Drive-Thru Restaurant;
- 4,620 square feet of General Office use;
- 4,620 square feet of Day Spa use; and
- 7,550 square feet of a Drinking Place use.

In summary, the project includes 78 residential condominiums, 4,620 square feet of General Office, and 21,285 square feet of local service retail. Since the office and retail components screen out, with the condominium portion the dominant use, this analysis focuses on the VMT from the residential portion of the project.

ANALYSIS METHODOLOGY

The Per Capita VMT was calculated from the CGPM. Model runs were conducted for the base and future models. The “plus project” conditions VMT was derived from full model runs performed to isolate the VMT for each component of the project. The project’s non-residential land uses were converted to socio-economic data using conversion factors from the SCAG Employment Density Report for conversion factors. Household characteristics were taken from the adjacent TAZ in the model.

Modeling Assumptions and Inputs.

The VMT analysis is conducted using Corona General Plan Model (CGPM) as indicated in the City’s SB 743 guidelines. The project includes 78 multifamily units, office, and retail land uses. The project non-residential square footage was converted to employment using “SCAG Employment Density Study Summary Report”. Table 7-1 provides the land use information and converted employment numbers by model category.

**Table 7-1
VMT Project Land Use to Model Socioeconomic Data Conversion**

Land Use	ITE Code	Quantities	Units	KSF per Employee *	Total	Model Employment Category
Multifamily (MF)	220	78	DU	0	0	
Office	710	4.62	TSF	598	8	Professional
Retail	820	5.59	TSF	432	13	Retail
Day Spa	918	4.62	TSF	432	11	Retail
Drinking Place	925	7.55	TSF	432	17	Retail
Fast food	933	1.96	TSF	432	5	Retail
Coffee shop	936	1.57	TSF	432	4	Retail
Total Households (MF)					78	
Total Employment					58	

* Source: “SCAG Employment Density Study Summary Report”

The project is located immediately to the west of Foothill Parkway and south of Chase Drive in the City of Corona. The project location in the CGPM is identified as TAZ 1351. However, based on initial iterations of modeling results, it was decided to evaluate the project by placing it on the east side of Foothill Parkway in TAZ 1381. This approach allows for the isolation of the project and its impact in the model. The socioeconomic data for TAZ 1381 was shifted to TAZ 1382. While this shift will have very minor localized effects, the regional travel patterns will not be affected. Socioeconomic data for the project was placed in the TAZ 1381 for the model run.

Model Outputs & Post Processing

The model outputs were reviewed and post processed using standard modeling practice. The post processing worksheet is included in Appendix G.

Table 7-2 shows the resulting VMT/SP for the project zone for the base and future years.

Table 7-2
Project VMT Analysis Results Summary

VMT	Base Year		Future Year	
	Project Zone	Adjacent Zone (1382)	Project Zone	Adjacent Zone (1382)
Adjusted Home Based Origin/Destination VMT	6,383	119,603	6,356	121,718
Total service population	247	5,930	247	5,982
VMT per service population	25.9	20.2	25.7	20.3

VMT EVALUATION

Baseline VMT: The project's VMT/SP is 25.9 miles, which is below the City's VMT/SP threshold of 30.2 miles for the base year. Therefore, the project will have a less than significant impact on VMT.

Cumulative VMT: The City requested that the cumulative VMT/SP be calculated for the project. The project's VMT/SP is 25.7 miles, which is below the City's VMT/SP threshold of 32.6 miles for the future year.

The City's thresholds for cumulative conditions are based on project effect on VMT. This is to account for situations wherein while the generated VMT is high, it reduces overall trips within the City and reduces overall VMT. Table 7-3 shows the results of the analysis. As seen on Table 7-3, the VMT/SP under with project conditions is less than the VMT/SP under without project conditions. Therefore, the project will have a less than significant impact on VMT.

This reduction is generally associated with a project, such as the one proposed, providing new retail and other services that are located closer to residents which eliminate or reduces the need to travel longer distances to access these services.

For instance, if residents currently need to travel 10 miles to access a specific service or retail destination, the project would now provide this service at a location that is closer, reducing the number of miles traveled.

**Table 7-3
Cumulative Project Effect on VMT**

2040	Without Project	With Project	Difference	% Difference
Roadway VMT	5,433,551	5,431,254	(2,297)	0.0%
Service Population*	466,186	466,491	305	0.1%
VMT per service population	11.66	11.64	(0.0)	-0.1%

*: Service population for retail uses based on the approximate number of one-way person trips within City boundary.

Impact Determination: As stated earlier, the City’s Guidelines use the following threshold of significance for use as part of the City’s environmental review process under CEQA:

- **Would the project increase the total daily vehicle miles traveled per service population (population plus employment) (VMT/SP) above the baseline level for the jurisdiction?**
 - As seen from the analysis, the project generated VMT/SP under baseline conditions is 25.9 miles, which is less than the City’s VMT/SP threshold of 30.2 miles. Therefore, the project has a less than significant impact under baseline conditions.
- **Would the project cause total daily VMT within the study area to be higher than the No Project alternative under cumulative conditions?**
 - The Guidelines clarify that a cumulative impact would occur if the project results in a negative effect on VMT/SP at the Citywide level. As seen from the analysis, the Citywide VMT/SP under Cumulative Plus Project Conditions is 11.64 miles, which is less than the City’s VMT/SP under without project conditions of 11.66 miles. Therefore, the project has a less than significant impact under baseline conditions.

8.0 Findings, Recommendations & Conclusions

The purpose of this traffic study is to assess the impacts of the proposed Skyline Village Commercial Center development.

8.1 Proposed Project

The proposed project consists of the construction and operation of a mixed-use retail/commercial center and a residential development on approximately 17.02 acres of vacant land. The following land uses are proposed for the development:

- 78 dwelling units of Residential Condominiums;
- 1,568 square feet of Coffee/Donut Shop Without Drive-Thru;
- 5,587 square feet of General Retail use;
- 1,960 square feet of Fast Food Without Drive-Thru Restaurant;
- 4,620 square feet of General Office use;
- 4,620 square feet of Day Spa use; and
- 7,550 square feet of a Drinking Place use.

The project is located southwest of Foothill Parkway at Chase Drive in the City of Corona.

The project will be evaluated in a single phase and is planned to open in 2022.

Access for the proposed project is planned to be provided via one (1) signalized driveway along Foothill Parkway, at the existing intersection with Chase Drive.

8.2 Project Trip Generation

After accounting for the applicable pass-by adjustments, the proposed project is forecast to generate approximately 2,600 daily trips, including approximately 159 trips during the AM peak hour, and approximately 212 trips during the PM peak hour.

8.3 Study Area & Analysis Conditions

This traffic study has been prepared in accordance with the traffic study guidelines, requirements and thresholds of significance for the City of Corona.

This study is prepared in accordance with the scope of work approved by the City of Corona staff.

The study area consists of the following intersections:

North-South Street	East-West Street
1. Serfas Club Drive	Green River Road
2. Montana Ranch Road	Green River Road
3. Tanglewood Drive	Green River Road
4. Paseo Grande	Green River Road
5. Border Avenue	Green River Road
6. Chase Drive	Foothill Parkway
7. Lincoln Avenue	Foothill Parkway
8. Main Street	Foothill Parkway
9. Fullerton Avenue	Foothill Parkway

The study also evaluates the following roadway segments:

	Street	Segment
1.	Green River Road	West of Serfas Club Drive
2.	Serfas Club Drive	North of Green River Road
3.	Green River Road	East of Serfas Club Drive
4.	Montana Ranch Road	South of Green River Road
5.	Green River Road	East of Montana Ranch Road
6.	Tanglewood Drive	North of Green River Road
7.	Tanglewood Drive	South of Green River Road
8.	Green River Road	East of Tanglewood Drive
9.	Paseo Grande	North of Foothill Parkway
10.	Foothill Parkway	East of Paseo Grande
11.	Border Avenue	North of Foothill Parkway
12.	Foothill Parkway	East of Border Avenue
13.	Chase Driveway	North of Foothill Parkway
14.	Chase Driveway – Project Access	South of Foothill Parkway
15.	Foothill Parkway	East of Chase Drive
16.	Lincoln Avenue	North of Foothill Parkway
17.	Lincoln Avenue	South of Foothill Parkway
18.	Foothill Parkway	East of Lincoln Avenue
19.	Main Street	North of Foothill Parkway
20.	Main Street	South of Foothill Parkway
21.	Foothill Parkway	East of Main Street
22.	Fullerton Avenue	North of Foothill Parkway
23.	Fullerton Avenue	South of Foothill Parkway
24.	Foothill Parkway	East of Fullerton Avenue

The analysis evaluates traffic conditions of the study intersections for the following scenarios in accordance with the City of Corona and the approved scope of work:

- Existing (2021) Conditions;
- Existing (2021) Plus Project Conditions;
- Project Opening Year (2022) with Background Traffic Conditions; and
- Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.

8.4 Study Intersection LOS Analysis & Significant Impact Summary

Existing (2021) Conditions:

All study area intersections are currently operating at an acceptable level of service (LOS D or better) during the peak hours for Existing Conditions.

Existing (2021) Plus Project Conditions:

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Existing Plus Project Conditions.

Based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Existing Plus Project Conditions.

Project Opening Year (2022) with Background Traffic Conditions:

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Project Opening Year (2022) with Background Traffic Conditions.

Project Opening Year (2022) with Background Traffic and Proposed Project Conditions:

All study area intersections are forecast to continue to operate at an acceptable level of service (LOS D or better) during the peak hours for Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.

Based on agency-established thresholds of significance, the proposed project is forecast to not result in any significant traffic impacts at the study intersections for Project Opening Year (2022) with Background Traffic and Proposed Project Conditions.

8.5 Roadway Segment LOS Analysis Summary

All study roadway segments are currently operating at an acceptable level or service (LOS C or better) and are forecast to continue to operate at an acceptable level of service for all scenarios.

8.6 Vehicles Miles Traveled (VMT) Analysis Summary

Based on the detailed VMT model run, the proposed project is forecast to not result in a significant VMT impact.

Appendix A

Existing Traffic Count Worksheets

City of Corona
 N/S: Serfas Club Drive
 E/W: Green River Road
 Weather: Clear

File Name : 01_COR_Serfas Club_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

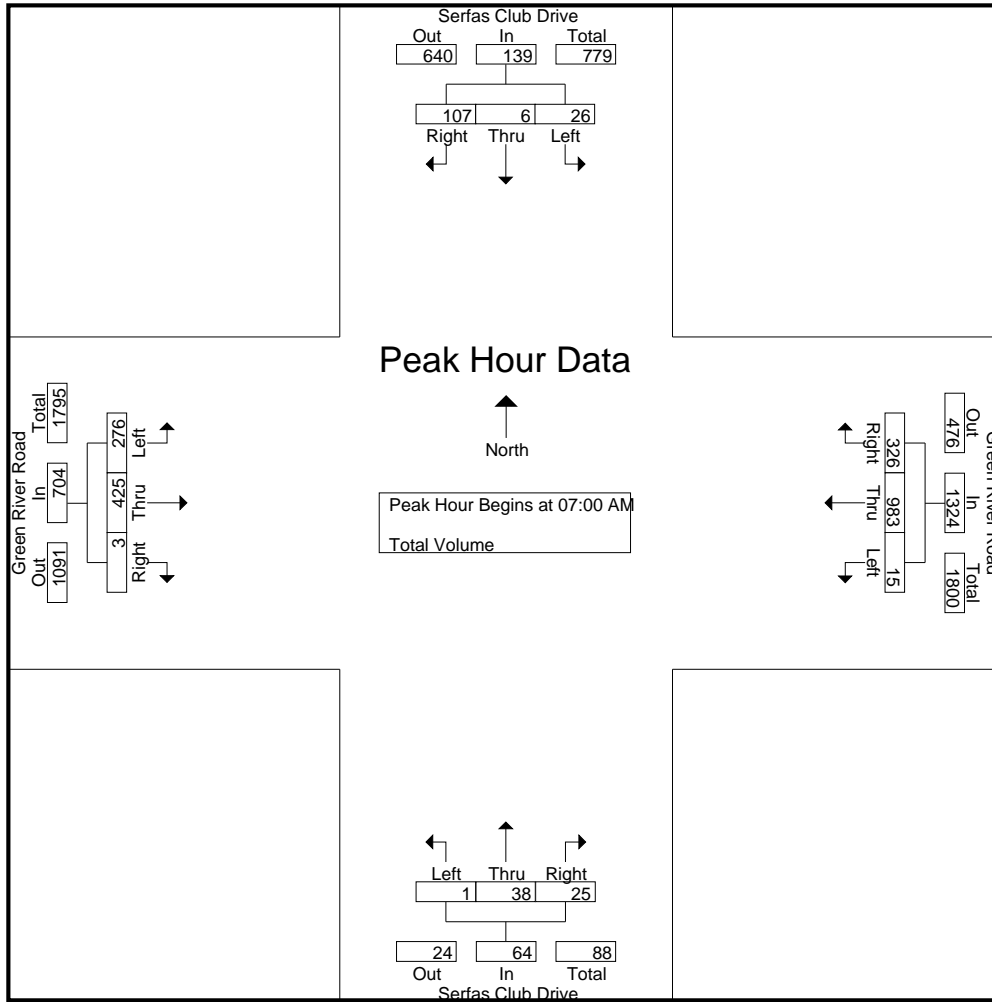
Groups Printed- Total Volume

Start Time	Serfas Club Drive Southbound				Green River Road Westbound				Serfas Club Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	3	1	8	12	1	304	66	371	0	6	0	6	24	7	0	31	420
05:45 AM	0	0	9	9	0	301	77	378	0	9	0	9	16	12	0	28	424
Total	3	1	17	21	1	605	143	749	0	15	0	15	40	19	0	59	844
06:00 AM	4	1	7	12	0	275	90	365	1	3	0	4	26	9	0	35	416
06:15 AM	3	0	9	12	0	208	109	317	1	8	1	10	33	27	0	60	399
06:30 AM	7	0	12	19	1	177	145	323	2	6	3	11	58	25	0	83	436
06:45 AM	7	1	9	17	0	179	96	275	1	6	1	8	60	45	0	105	405
Total	21	2	37	60	1	839	440	1280	5	23	5	33	177	106	0	283	1656
07:00 AM	8	1	10	19	0	187	95	282	0	7	9	16	64	80	1	145	462
07:15 AM	6	3	44	53	3	265	81	349	0	12	10	22	64	145	1	210	634
07:30 AM	5	2	25	32	8	269	77	354	0	10	4	14	84	127	1	212	612
07:45 AM	7	0	28	35	4	262	73	339	1	9	2	12	64	73	0	137	523
Total	26	6	107	139	15	983	326	1324	1	38	25	64	276	425	3	704	2231
08:00 AM	9	1	28	38	3	226	57	286	2	0	2	4	44	46	0	90	418
08:15 AM	6	2	26	34	0	259	66	325	0	6	2	8	40	62	0	102	469
08:30 AM	9	1	21	31	1	247	33	281	1	3	2	6	57	49	2	108	426
08:45 AM	12	1	28	41	2	232	46	280	0	7	4	11	59	42	0	101	433
Total	36	5	103	144	6	964	202	1172	3	16	10	29	200	199	2	401	1746
Grand Total	86	14	264	364	23	3391	1111	4525	9	92	40	141	693	749	5	1447	6477
Apprch %	23.6	3.8	72.5		0.5	74.9	24.6		6.4	65.2	28.4		47.9	51.8	0.3		
Total %	1.3	0.2	4.1	5.6	0.4	52.4	17.2	69.9	0.1	1.4	0.6	2.2	10.7	11.6	0.1	22.3	

Start Time	Serfas Club Drive Southbound				Green River Road Westbound				Serfas Club Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	1	10	19	0	187	95	282	0	7	9	16	64	80	1	145	462
07:15 AM	6	3	44	53	3	265	81	349	0	12	10	22	64	145	1	210	634
07:30 AM	5	2	25	32	8	269	77	354	0	10	4	14	84	127	1	212	612
07:45 AM	7	0	28	35	4	262	73	339	1	9	2	12	64	73	0	137	523
Total Volume	26	6	107	139	15	983	326	1324	1	38	25	64	276	425	3	704	2231
% App. Total	18.7	4.3	77		1.1	74.2	24.6		1.6	59.4	39.1		39.2	60.4	0.4		
PHF	.813	.500	.608	.656	.469	.914	.858	.935	.250	.792	.625	.727	.821	.733	.750	.830	.880

City of Corona
 N/S: Serfas Club Drive
 E/W: Green River Road
 Weather: Clear

File Name : 01_COR_Serfas Club_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				05:30 AM				07:00 AM				07:00 AM			
+0 mins.	6	3	44	53	1	304	66	371	0	7	9	16	64	80	1	145
+15 mins.	5	2	25	32	0	301	77	378	0	12	10	22	64	145	1	210
+30 mins.	7	0	28	35	0	275	90	365	0	10	4	14	84	127	1	212
+45 mins.	9	1	28	38	0	208	109	317	1	9	2	12	64	73	0	137
Total Volume	27	6	125	158	1	1088	342	1431	1	38	25	64	276	425	3	704
% App. Total	17.1	3.8	79.1		0.1	76	23.9		1.6	59.4	39.1		39.2	60.4	0.4	
PHF	.750	.500	.710	.745	.250	.895	.784	.946	.250	.792	.625	.727	.821	.733	.750	.830

City of Corona
 N/S: Serfas Club Drive
 E/W: Green River Road
 Weather: Clear

File Name : 01_COR_Serfas Club_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

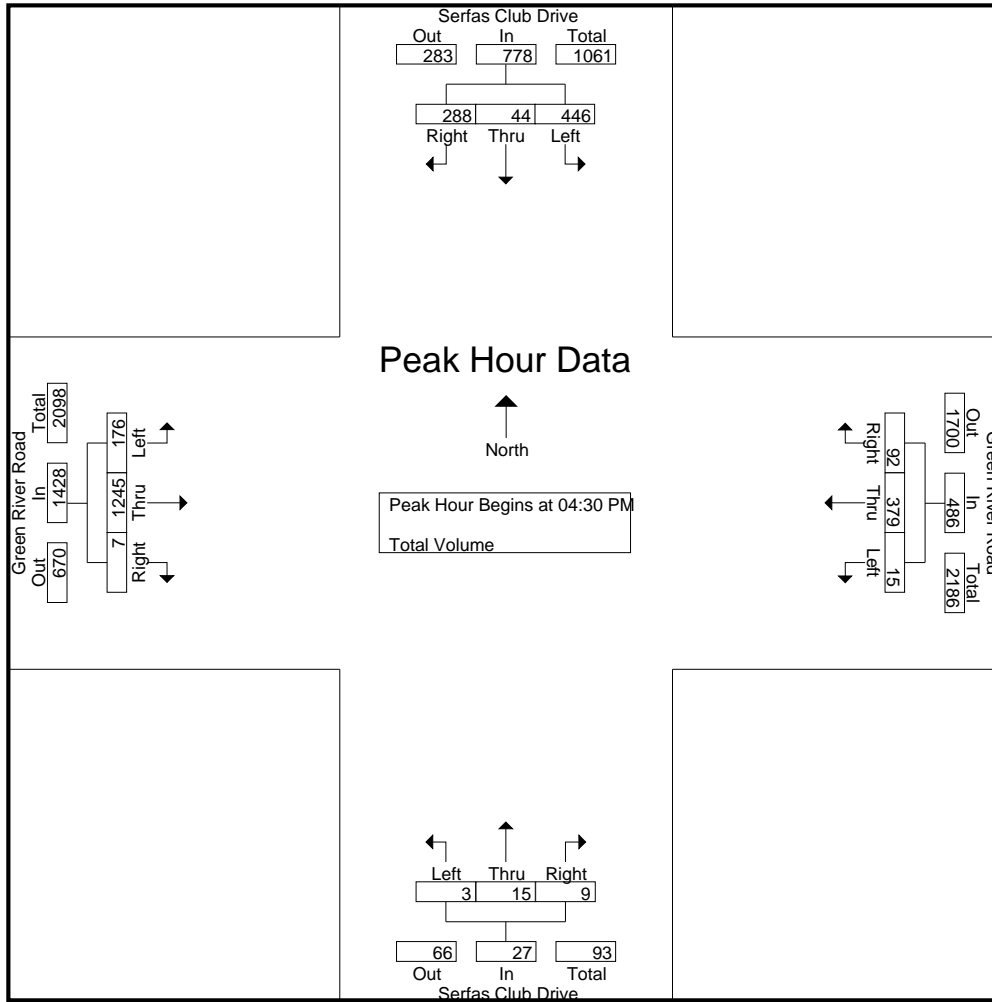
Groups Printed- Total Volume

Start Time	Serfas Club Drive Southbound				Green River Road Westbound				Serfas Club Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	76	3	54	133	5	96	19	120	6	2	3	11	38	285	3	326	590
03:45 PM	57	5	35	97	3	78	19	100	2	3	2	7	40	290	3	333	537
Total	133	8	89	230	8	174	38	220	8	5	5	18	78	575	6	659	1127
04:00 PM	83	6	57	146	1	90	19	110	2	1	5	8	39	294	0	333	597
04:15 PM	85	0	56	141	1	93	11	105	4	4	3	11	33	313	3	349	606
04:30 PM	119	6	57	182	3	106	28	137	1	3	1	5	48	317	2	367	691
04:45 PM	115	10	77	202	5	89	25	119	0	3	2	5	48	306	2	356	682
Total	402	22	247	671	10	378	83	471	7	11	11	29	168	1230	7	1405	2576
05:00 PM	109	9	79	197	3	96	21	120	1	8	3	12	39	338	2	379	708
05:15 PM	103	19	75	197	4	88	18	110	1	1	3	5	41	284	1	326	638
05:30 PM	72	7	62	141	2	93	22	117	1	5	2	8	53	308	5	366	632
05:45 PM	71	5	54	130	1	66	24	91	4	3	0	7	60	279	1	340	568
Total	355	40	270	665	10	343	85	438	7	17	8	32	193	1209	9	1411	2546
06:00 PM	71	4	58	133	2	72	21	95	0	8	2	10	33	275	2	310	548
06:15 PM	53	2	65	120	2	67	24	93	1	4	0	5	44	251	2	297	515
Grand Total	1014	76	729	1819	32	1034	251	1317	23	45	26	94	516	3540	26	4082	7312
Apprch %	55.7	4.2	40.1		2.4	78.5	19.1		24.5	47.9	27.7		12.6	86.7	0.6		
Total %	13.9	1	10	24.9	0.4	14.1	3.4	18	0.3	0.6	0.4	1.3	7.1	48.4	0.4	55.8	

Start Time	Serfas Club Drive Southbound				Green River Road Westbound				Serfas Club Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	119	6	57	182	3	106	28	137	1	3	1	5	48	317	2	367	691
04:45 PM	115	10	77	202	5	89	25	119	0	3	2	5	48	306	2	356	682
05:00 PM	109	9	79	197	3	96	21	120	1	8	3	12	39	338	2	379	708
05:15 PM	103	19	75	197	4	88	18	110	1	1	3	5	41	284	1	326	638
Total Volume	446	44	288	778	15	379	92	486	3	15	9	27	176	1245	7	1428	2719
% App. Total	57.3	5.7	37		3.1	78	18.9		11.1	55.6	33.3		12.3	87.2	0.5		
PHF	.937	.579	.911	.963	.750	.894	.821	.887	.750	.469	.750	.563	.917	.921	.875	.942	.960

City of Corona
 N/S: Serfas Club Drive
 E/W: Green River Road
 Weather: Clear

File Name : 01_COR_Serfas Club_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				03:30 PM				04:15 PM			
+0 mins.	119	6	57	182	3	106	28	137	6	2	3	11	33	313	3	349
+15 mins.	115	10	77	202	5	89	25	119	2	3	2	7	48	317	2	367
+30 mins.	109	9	79	197	3	96	21	120	2	1	5	8	48	306	2	356
+45 mins.	103	19	75	197	4	88	18	110	4	4	3	11	39	338	2	379
Total Volume	446	44	288	778	15	379	92	486	14	10	13	37	168	1274	9	1451
% App. Total	57.3	5.7	37		3.1	78	18.9		37.8	27	35.1		11.6	87.8	0.6	
PHF	.937	.579	.911	.963	.750	.894	.821	.887	.583	.625	.650	.841	.875	.942	.750	.957

City of Corona
 N/S: Montana Ranch Road
 E/W: Green River Road
 Weather: Clear

File Name : 02_COR_Montana Ranch_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

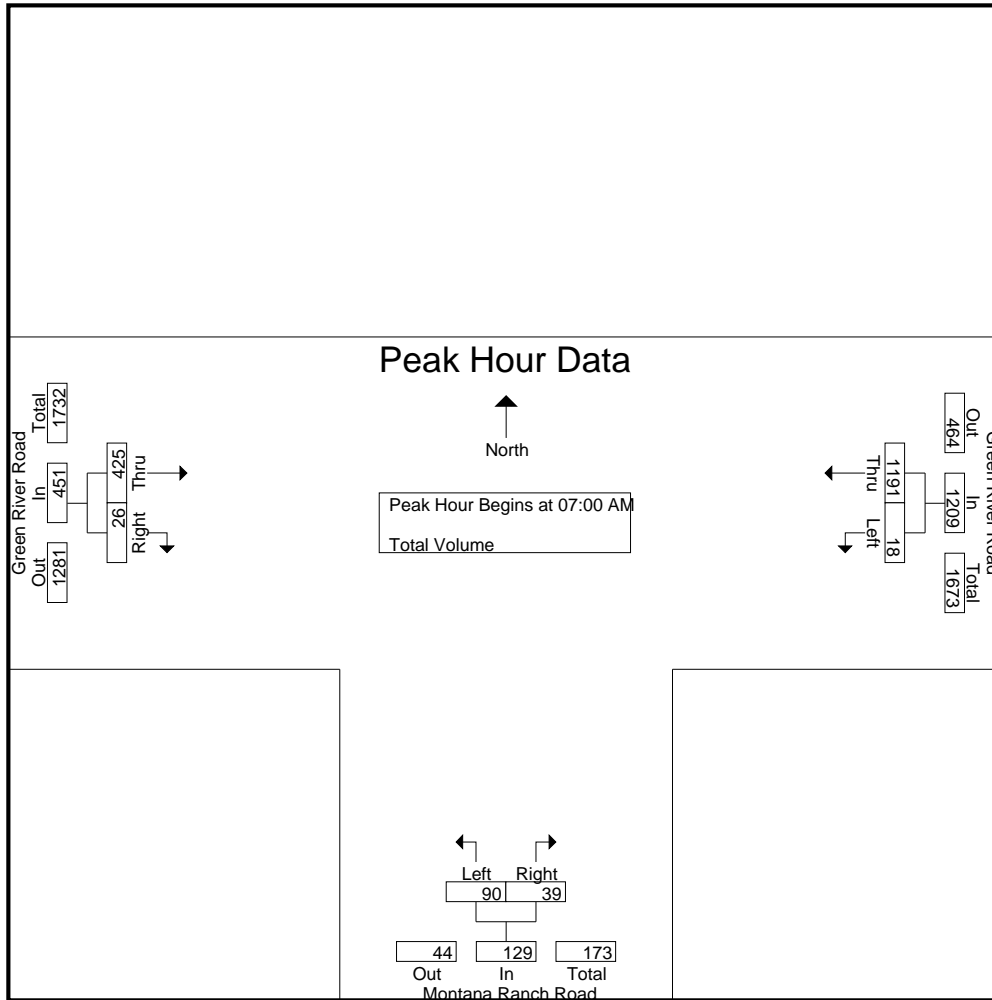
Start Time	Green River Road Westbound			Montana Ranch Road Northbound			Green River Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:30 AM	1	346	347	8	1	9	7	0	7	363
05:45 AM	0	355	355	20	2	22	21	2	23	400
Total	1	701	702	28	3	31	28	2	30	763
06:00 AM	0	331	331	11	1	12	10	2	12	355
06:15 AM	1	280	281	19	0	19	26	0	26	326
06:30 AM	2	291	293	19	6	25	30	1	31	349
06:45 AM	1	250	251	15	3	18	43	5	48	317
Total	4	1152	1156	64	10	74	109	8	117	1347
07:00 AM	2	260	262	21	10	31	88	5	93	386
07:15 AM	2	301	303	34	17	51	146	10	156	510
07:30 AM	10	319	329	19	10	29	116	7	123	481
07:45 AM	4	311	315	16	2	18	75	4	79	412
Total	18	1191	1209	90	39	129	425	26	451	1789
08:00 AM	7	247	254	16	6	22	47	4	51	327
08:15 AM	3	289	292	25	8	33	62	7	69	394
08:30 AM	3	253	256	12	5	17	53	6	59	332
08:45 AM	4	259	263	16	4	20	48	2	50	333
Total	17	1048	1065	69	23	92	210	19	229	1386
Grand Total	40	4092	4132	251	75	326	772	55	827	5285
Apprch %	1	99		77	23		93.3	6.7		
Total %	0.8	77.4	78.2	4.7	1.4	6.2	14.6	1	15.6	

Start Time	Green River Road Westbound			Montana Ranch Road Northbound			Green River Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	2	260	262	21	10	31	88	5	93	386
07:15 AM	2	301	303	34	17	51	146	10	156	510
07:30 AM	10	319	329	19	10	29	116	7	123	481
07:45 AM	4	311	315	16	2	18	75	4	79	412
Total Volume	18	1191	1209	90	39	129	425	26	451	1789
% App. Total	1.5	98.5		69.8	30.2		94.2	5.8		
PHF	.450	.933	.919	.662	.574	.632	.728	.650	.723	.877

Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

City of Corona
 N/S: Montana Ranch Road
 E/W: Green River Road
 Weather: Clear

File Name : 02_COR_Montana Ranch_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:30 AM		06:45 AM			07:00 AM			
+0 mins.	1	346	347	15	3	18	88	5	93
+15 mins.	0	355	355	21	10	31	146	10	156
+30 mins.	0	331	331	34	17	51	116	7	123
+45 mins.	1	280	281	19	10	29	75	4	79
Total Volume	2	1312	1314	89	40	129	425	26	451
% App. Total	0.2	99.8		69	31		94.2	5.8	
PHF	.500	.924	.925	.654	.588	.632	.728	.650	.723

City of Corona
 N/S: Montana Ranch Road
 E/W: Green River Road
 Weather: Clear

File Name : 02_COR_Montana Ranch_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

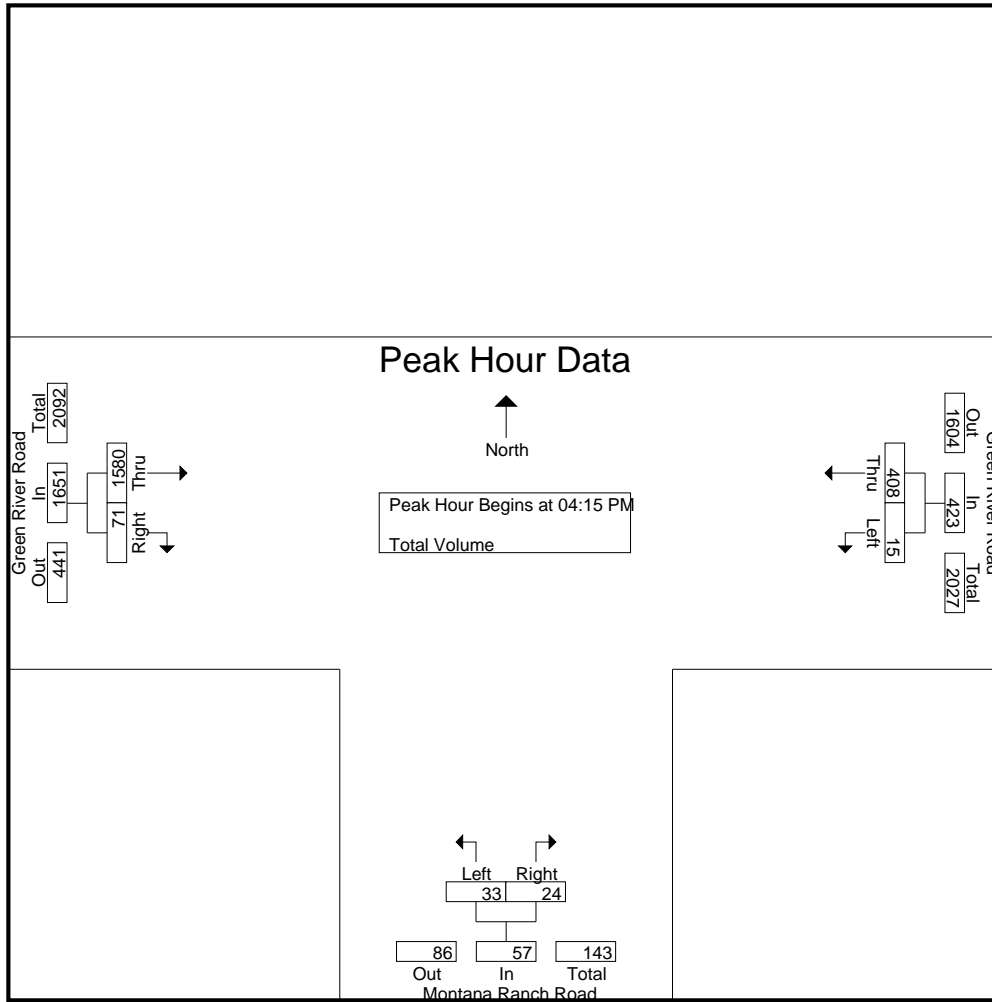
Groups Printed- Total Volume

Start Time	Green River Road Westbound			Montana Ranch Road Northbound			Green River Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
03:30 PM	7	107	114	5	8	13	342	12	354	481
03:45 PM	10	92	102	10	8	18	331	15	346	466
Total	17	199	216	15	16	31	673	27	700	947
04:00 PM	13	96	109	9	7	16	346	12	358	483
04:15 PM	5	100	105	3	3	6	382	9	391	502
04:30 PM	3	114	117	9	9	18	405	16	421	556
04:45 PM	2	95	97	12	5	17	371	24	395	509
Total	23	405	428	33	24	57	1504	61	1565	2050
05:00 PM	5	99	104	9	7	16	422	22	444	564
05:15 PM	6	92	98	11	7	18	355	25	380	496
05:30 PM	5	96	101	10	8	18	358	18	376	495
05:45 PM	7	82	89	7	4	11	316	23	339	439
Total	23	369	392	37	26	63	1451	88	1539	1994
06:00 PM	8	89	97	8	9	17	320	19	339	453
06:15 PM	1	84	85	10	1	11	284	20	304	400
Grand Total	72	1146	1218	103	76	179	4232	215	4447	5844
Apprch %	5.9	94.1		57.5	42.5		95.2	4.8		
Total %	1.2	19.6	20.8	1.8	1.3	3.1	72.4	3.7	76.1	

Start Time	Green River Road Westbound			Montana Ranch Road Northbound			Green River Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	5	100	105	3	3	6	382	9	391	502
04:30 PM	3	114	117	9	9	18	405	16	421	556
04:45 PM	2	95	97	12	5	17	371	24	395	509
05:00 PM	5	99	104	9	7	16	422	22	444	564
Total Volume	15	408	423	33	24	57	1580	71	1651	2131
% App. Total	3.5	96.5		57.9	42.1		95.7	4.3		
PHF	.750	.895	.904	.688	.667	.792	.936	.740	.930	.945

City of Corona
 N/S: Montana Ranch Road
 E/W: Green River Road
 Weather: Clear

File Name : 02_COR_Montana Ranch_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:45 PM			04:30 PM			04:15 PM		
+0 mins.	10	92	102	9	9	18	382	9	391
+15 mins.	13	96	109	12	5	17	405	16	421
+30 mins.	5	100	105	9	7	16	371	24	395
+45 mins.	3	114	117	11	7	18	422	22	444
Total Volume	31	402	433	41	28	69	1580	71	1651
% App. Total	7.2	92.8		59.4	40.6		95.7	4.3	
PHF	.596	.882	.925	.854	.778	.958	.936	.740	.930

City of Corona
 N/S: Tanglewood Drive/Sierra Bella Drive
 E/W: Green River Road
 Weather: Clear

File Name : 03_COR_Tanglewood_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

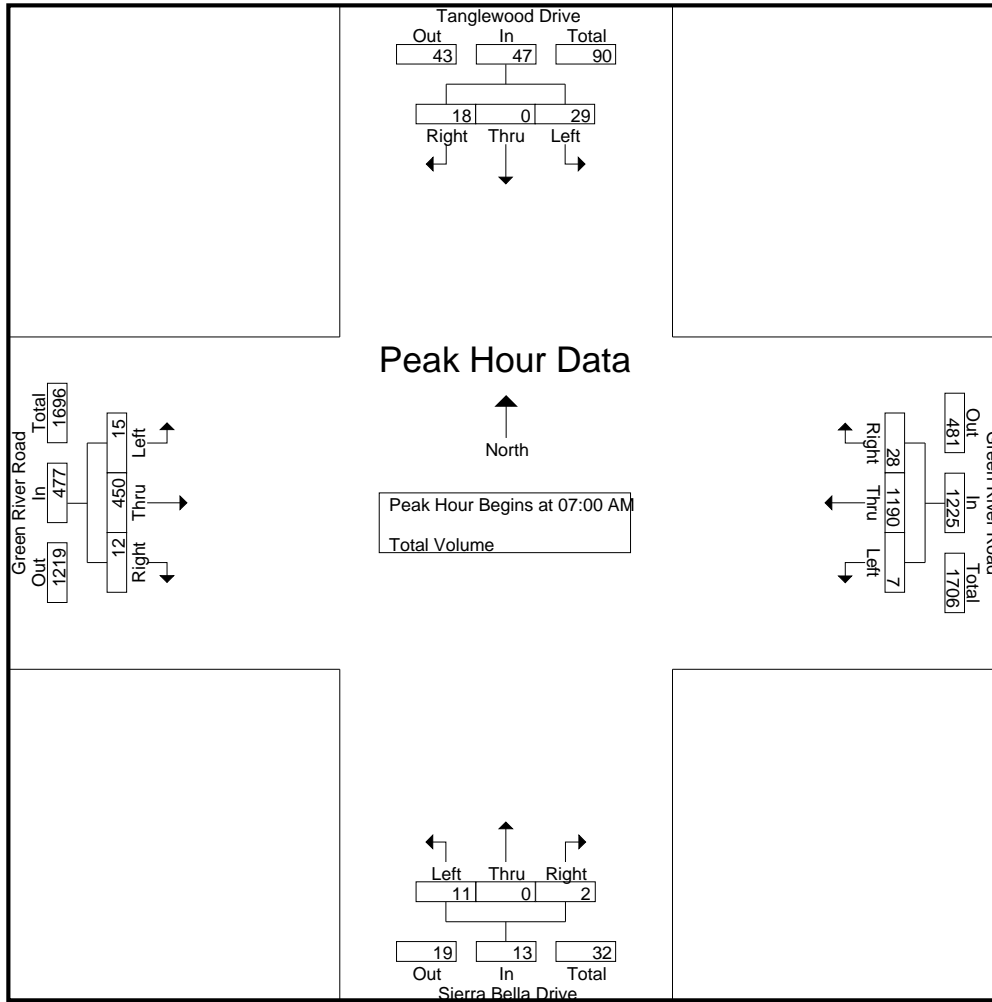
Groups Printed- Total Volume

Start Time	Tanglewood Drive Southbound				Green River Road Westbound				Sierra Bella Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	0	0	4	4	0	339	0	339	0	0	0	0	0	12	0	12	355
05:45 AM	2	0	5	7	0	341	1	342	0	0	0	0	0	13	0	13	362
Total	2	0	9	11	0	680	1	681	0	0	0	0	0	25	0	25	717
06:00 AM	1	0	2	3	0	334	1	335	2	0	0	2	0	12	0	12	352
06:15 AM	3	0	2	5	6	286	0	292	1	0	1	2	0	25	0	25	324
06:30 AM	6	0	1	7	5	276	0	281	1	0	0	1	0	35	0	35	324
06:45 AM	5	0	2	7	3	253	3	259	0	0	1	1	0	43	5	48	315
Total	15	0	7	22	14	1149	4	1167	4	0	2	6	0	115	5	120	1315
07:00 AM	8	0	6	14	3	254	4	261	5	0	2	7	3	88	4	95	377
07:15 AM	13	0	4	17	1	304	7	312	3	0	0	3	1	158	2	161	493
07:30 AM	7	0	4	11	1	333	9	343	3	0	0	3	7	125	4	136	493
07:45 AM	1	0	4	5	2	299	8	309	0	0	0	0	4	79	2	85	399
Total	29	0	18	47	7	1190	28	1225	11	0	2	13	15	450	12	477	1762
08:00 AM	4	0	2	6	1	253	3	257	3	1	0	4	1	47	3	51	318
08:15 AM	8	0	4	12	0	289	3	292	2	0	0	2	0	68	3	71	377
08:30 AM	2	0	5	7	2	252	3	257	0	0	0	0	1	55	3	59	323
08:45 AM	1	0	1	2	1	265	1	267	2	0	2	4	0	50	1	51	324
Total	15	0	12	27	4	1059	10	1073	7	1	2	10	2	220	10	232	1342
Grand Total	61	0	46	107	25	4078	43	4146	22	1	6	29	17	810	27	854	5136
Apprch %	57	0	43		0.6	98.4	1		75.9	3.4	20.7		2	94.8	3.2		
Total %	1.2	0	0.9	2.1	0.5	79.4	0.8	80.7	0.4	0	0.1	0.6	0.3	15.8	0.5	16.6	

Start Time	Tanglewood Drive Southbound				Green River Road Westbound				Sierra Bella Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	0	6	14	3	254	4	261	5	0	2	7	3	88	4	95	377
07:15 AM	13	0	4	17	1	304	7	312	3	0	0	3	1	158	2	161	493
07:30 AM	7	0	4	11	1	333	9	343	3	0	0	3	7	125	4	136	493
07:45 AM	1	0	4	5	2	299	8	309	0	0	0	0	4	79	2	85	399
Total Volume	29	0	18	47	7	1190	28	1225	11	0	2	13	15	450	12	477	1762
% App. Total	61.7	0	38.3		0.6	97.1	2.3		84.6	0	15.4		3.1	94.3	2.5		
PHF	.558	.000	.750	.691	.583	.893	.778	.893	.550	.000	.250	.464	.536	.712	.750	.741	.894

City of Corona
 N/S: Tanglewood Drive/Sierra Bella Drive
 E/W: Green River Road
 Weather: Clear

File Name : 03_COR_Tanglewood_Green River AM
 Site Code : 10519845
 Start Date : 12/5/2019
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Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	06:45 AM				05:30 AM				06:45 AM				07:00 AM			
+0 mins.	5	0	2	7	0	339	0	339	0	0	1	1	3	88	4	95
+15 mins.	8	0	6	14	0	341	1	342	5	0	2	7	1	158	2	161
+30 mins.	13	0	4	17	0	334	1	335	3	0	0	3	7	125	4	136
+45 mins.	7	0	4	11	6	286	0	292	3	0	0	3	4	79	2	85
Total Volume	33	0	16	49	6	1300	2	1308	11	0	3	14	15	450	12	477
% App. Total	67.3	0	32.7		0.5	99.4	0.2		78.6	0	21.4		3.1	94.3	2.5	
PHF	.635	.000	.667	.721	.250	.953	.500	.956	.550	.000	.375	.500	.536	.712	.750	.741

City of Corona
 N/S: Tanglewood Drive/Sierra Bella Drive
 E/W: Green River Road
 Weather: Clear

File Name : 03_COR_Tanglewood_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

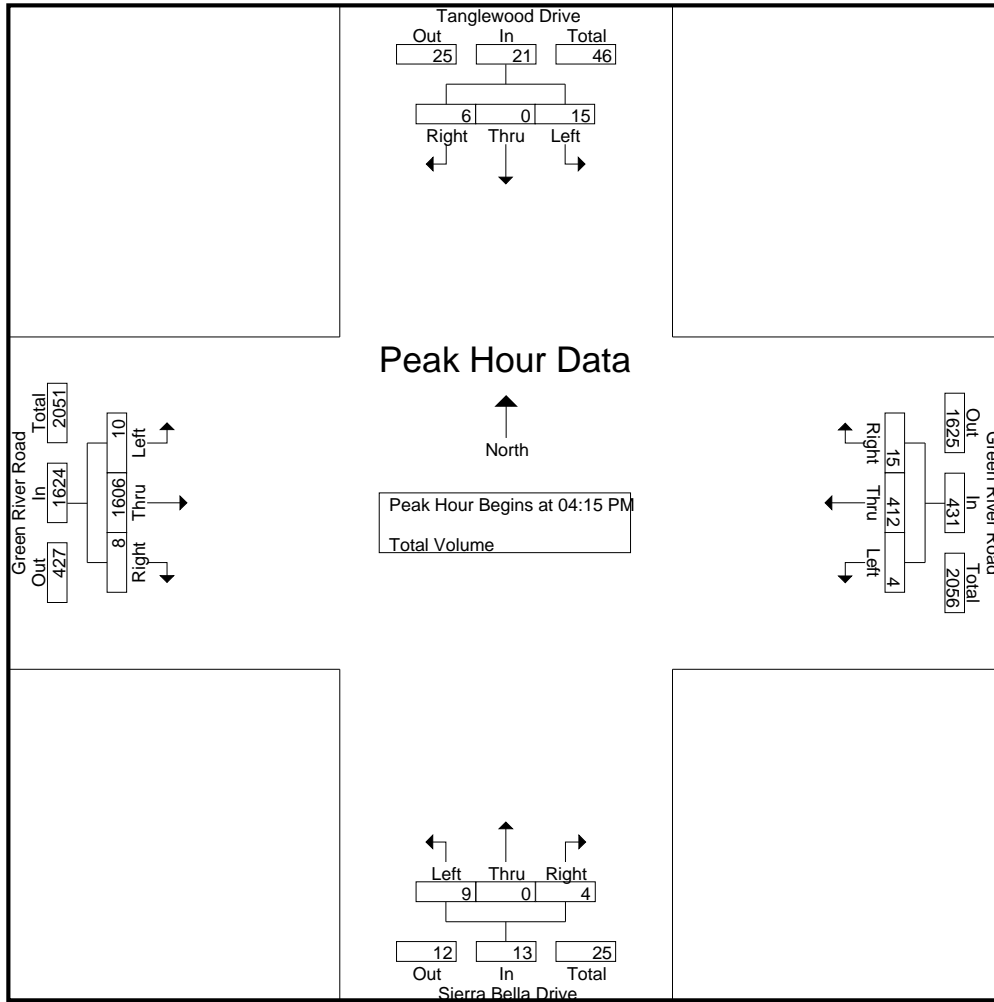
Groups Printed- Total Volume

Start Time	Tanglewood Drive Southbound				Green River Road Westbound				Sierra Bella Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	5	0	2	7	3	106	5	114	3	0	4	7	2	346	3	351	479
03:45 PM	3	0	1	4	0	102	2	104	3	0	1	4	5	332	1	338	450
Total	8	0	3	11	3	208	7	218	6	0	5	11	7	678	4	689	929
04:00 PM	3	0	3	6	0	104	1	105	2	0	2	4	1	334	2	337	452
04:15 PM	4	0	0	4	1	103	2	106	3	0	2	5	2	401	3	406	521
04:30 PM	2	0	3	5	1	116	4	121	2	0	1	3	4	403	2	409	538
04:45 PM	4	0	1	5	1	92	5	98	1	0	1	2	3	379	2	384	489
Total	13	0	7	20	3	415	12	430	8	0	6	14	10	1517	9	1536	2000
05:00 PM	5	0	2	7	1	101	4	106	3	0	0	3	1	423	1	425	541
05:15 PM	6	0	0	6	2	100	5	107	2	0	0	2	7	352	2	361	476
05:30 PM	2	0	4	6	0	86	2	88	3	0	1	4	3	365	1	369	467
05:45 PM	1	0	3	4	2	88	2	92	0	1	0	1	5	314	0	319	416
Total	14	0	9	23	5	375	13	393	8	1	1	10	16	1454	4	1474	1900
06:00 PM	7	0	0	7	0	87	4	91	0	0	0	0	0	310	1	311	409
06:15 PM	6	0	1	7	0	87	3	90	0	0	0	0	2	274	1	277	374
Grand Total	48	0	20	68	11	1172	39	1222	22	1	12	35	35	4233	19	4287	5612
Apprch %	70.6	0	29.4		0.9	95.9	3.2		62.9	2.9	34.3		0.8	98.7	0.4		
Total %	0.9	0	0.4	1.2	0.2	20.9	0.7	21.8	0.4	0	0.2	0.6	0.6	75.4	0.3	76.4	

Start Time	Tanglewood Drive Southbound				Green River Road Westbound				Sierra Bella Drive Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	0	0	4	1	103	2	106	3	0	2	5	2	401	3	406	521
04:30 PM	2	0	3	5	1	116	4	121	2	0	1	3	4	403	2	409	538
04:45 PM	4	0	1	5	1	92	5	98	1	0	1	2	3	379	2	384	489
05:00 PM	5	0	2	7	1	101	4	106	3	0	0	3	1	423	1	425	541
Total Volume	15	0	6	21	4	412	15	431	9	0	4	13	10	1606	8	1624	2089
% App. Total	71.4	0	28.6		0.9	95.6	3.5		69.2	0	30.8		0.6	98.9	0.5		
PHF	.750	.000	.500	.750	1.00	.888	.750	.890	.750	.000	.500	.650	.625	.949	.667	.955	.965

City of Corona
 N/S: Tanglewood Drive/Sierra Bella Drive
 E/W: Green River Road
 Weather: Clear

File Name : 03_COR_Tanglewood_Green River PM
 Site Code : 10519845
 Start Date : 12/5/2019
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Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				03:45 PM				03:30 PM				04:15 PM			
+0 mins.	4	0	1	5	0	102	2	104	3	0	4	7	2	401	3	406
+15 mins.	5	0	2	7	0	104	1	105	3	0	1	4	4	403	2	409
+30 mins.	6	0	0	6	1	103	2	106	2	0	2	4	3	379	2	384
+45 mins.	2	0	4	6	1	116	4	121	3	0	2	5	1	423	1	425
Total Volume	17	0	7	24	2	425	9	436	11	0	9	20	10	1606	8	1624
% App. Total	70.8	0	29.2		0.5	97.5	2.1		55	0	45		0.6	98.9	0.5	
PHF	.708	.000	.438	.857	.500	.916	.563	.901	.917	.000	.563	.714	.625	.949	.667	.955

City of Corona
 N/S: Paseo Grande
 E/W: Green River Road/Foothill Parkway
 Weather: Clear

File Name : 04_COR_Paseo G_Green_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

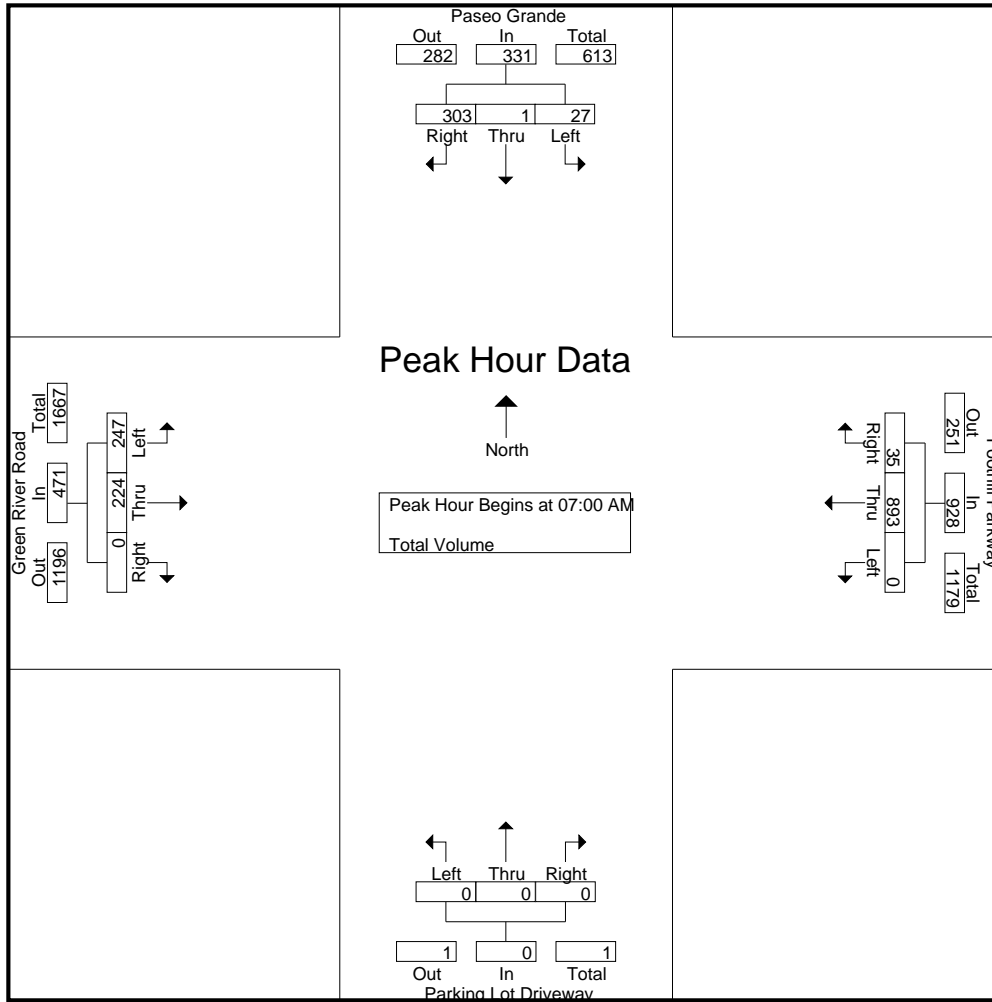
Groups Printed- Total Volume

Start Time	Paseo Grande Southbound				Foothill Parkway Westbound				Parking Lot Driveway Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	2	0	55	57	0	299	0	299	0	0	0	0	1	10	0	11	367
05:45 AM	1	0	48	49	0	293	0	293	0	0	0	0	3	10	1	14	356
Total	3	0	103	106	0	592	0	592	0	0	0	0	4	20	1	25	723
06:00 AM	2	1	45	48	0	288	0	288	0	0	0	0	5	7	0	12	348
06:15 AM	1	0	45	46	0	250	0	250	0	0	0	0	9	20	0	29	325
06:30 AM	6	0	45	51	0	236	2	238	0	0	0	0	26	16	0	42	331
06:45 AM	7	0	42	49	0	214	9	223	0	0	0	0	19	29	0	48	320
Total	16	1	177	194	0	988	11	999	0	0	0	0	59	72	0	131	1324
07:00 AM	3	0	44	47	0	207	3	210	0	0	0	0	40	52	0	92	349
07:15 AM	10	0	87	97	0	215	10	225	0	0	0	0	97	68	0	165	487
07:30 AM	8	0	101	109	0	238	10	248	0	0	0	0	75	57	0	132	489
07:45 AM	6	1	71	78	0	233	12	245	0	0	0	0	35	47	0	82	405
Total	27	1	303	331	0	893	35	928	0	0	0	0	247	224	0	471	1730
08:00 AM	3	0	50	53	0	208	2	210	0	0	0	0	15	37	0	52	315
08:15 AM	7	0	47	54	0	248	7	255	0	0	0	0	29	43	0	72	381
08:30 AM	3	0	39	42	0	223	0	223	0	0	0	0	19	38	0	57	322
08:45 AM	8	0	33	41	1	215	3	219	0	0	0	0	18	34	0	52	312
Total	21	0	169	190	1	894	12	907	0	0	0	0	81	152	0	233	1330
Grand Total	67	2	752	821	1	3367	58	3426	0	0	0	0	391	468	1	860	5107
Apprch %	8.2	0.2	91.6		0	98.3	1.7		0	0	0	0	45.5	54.4	0.1		
Total %	1.3	0	14.7	16.1	0	65.9	1.1	67.1	0	0	0	0	7.7	9.2	0	16.8	

Start Time	Paseo Grande Southbound				Foothill Parkway Westbound				Parking Lot Driveway Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	0	44	47	0	207	3	210	0	0	0	0	40	52	0	92	349
07:15 AM	10	0	87	97	0	215	10	225	0	0	0	0	97	68	0	165	487
07:30 AM	8	0	101	109	0	238	10	248	0	0	0	0	75	57	0	132	489
07:45 AM	6	1	71	78	0	233	12	245	0	0	0	0	35	47	0	82	405
Total Volume	27	1	303	331	0	893	35	928	0	0	0	0	247	224	0	471	1730
% App. Total	8.2	0.3	91.5		0	96.2	3.8		0	0	0	0	52.4	47.6	0		
PHF	.675	.250	.750	.759	.000	.938	.729	.935	.000	.000	.000	.000	.637	.824	.000	.714	.884

City of Corona
 N/S: Paseo Grande
 E/W: Green River Road/Foothill Parkway
 Weather: Clear

File Name : 04_COR_Paseo G_Green_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
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Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				05:30 AM				05:30 AM				07:00 AM			
+0 mins.	10	0	87	97	0	299	0	299	0	0	0	0	40	52	0	92
+15 mins.	8	0	101	109	0	293	0	293	0	0	0	0	97	68	0	165
+30 mins.	6	1	71	78	0	288	0	288	0	0	0	0	75	57	0	132
+45 mins.	3	0	50	53	0	250	0	250	0	0	0	0	35	47	0	82
Total Volume	27	1	309	337	0	1130	0	1130	0	0	0	0	247	224	0	471
% App. Total	8	0.3	91.7		0	100	0		0	0	0		52.4	47.6	0	
PHF	.675	.250	.765	.773	.000	.945	.000	.945	.000	.000	.000	.000	.637	.824	.000	.714

City of Corona
 N/S: Paseo Grande
 E/W: Green River Road/Foothill Parkway
 Weather: Clear

File Name : 04_COR_Paseo G_Green_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

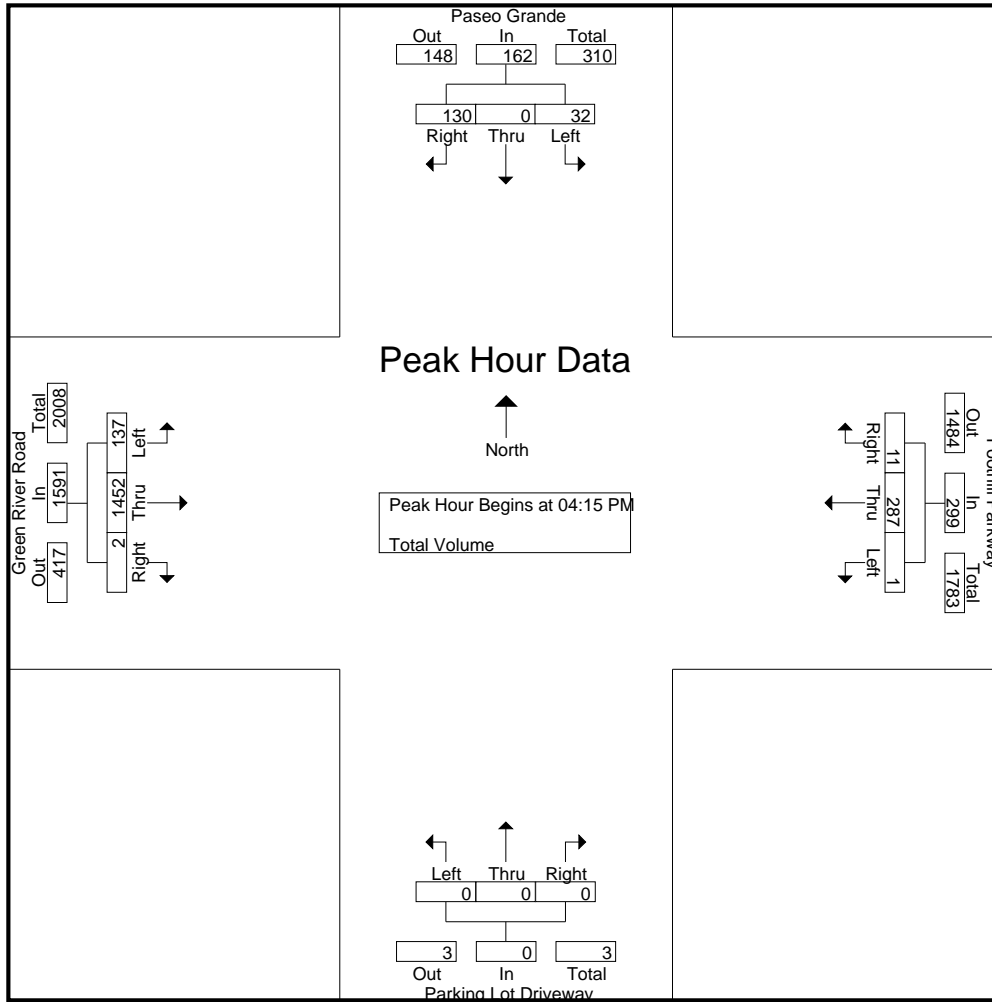
Groups Printed- Total Volume

Start Time	Paseo Grande Southbound				Foothill Parkway Westbound				Parking Lot Driveway Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	8	0	45	53	0	65	2	67	0	0	0	0	39	296	0	335	455
03:45 PM	8	1	39	48	0	65	3	68	0	0	0	0	48	294	0	342	458
Total	16	1	84	101	0	130	5	135	0	0	0	0	87	590	0	677	913
04:00 PM	9	0	29	38	0	82	1	83	0	0	0	0	33	305	1	339	460
04:15 PM	7	0	29	36	0	74	5	79	0	0	0	0	34	356	2	392	507
04:30 PM	12	0	39	51	0	78	2	80	0	0	0	0	39	348	0	387	518
04:45 PM	7	0	30	37	0	68	1	69	0	0	0	0	27	368	0	395	501
Total	35	0	127	162	0	302	9	311	0	0	0	0	133	1377	3	1513	1986
05:00 PM	6	0	32	38	1	67	3	71	0	0	0	0	37	380	0	417	526
05:15 PM	10	0	27	37	0	76	4	80	0	0	0	0	39	306	1	346	463
05:30 PM	7	0	29	36	0	63	3	66	0	0	0	0	31	339	0	370	472
05:45 PM	4	0	21	25	0	66	3	69	0	0	0	0	27	272	0	299	393
Total	27	0	109	136	1	272	13	286	0	0	0	0	134	1297	1	1432	1854
06:00 PM	8	0	24	32	0	65	2	67	0	0	0	0	41	273	1	315	414
06:15 PM	5	0	26	31	0	62	1	63	0	0	0	0	35	246	0	281	375
Grand Total	91	1	370	462	1	831	30	862	0	0	0	0	430	3783	5	4218	5542
Apprch %	19.7	0.2	80.1		0.1	96.4	3.5		0	0	0		10.2	89.7	0.1		
Total %	1.6	0	6.7	8.3	0	15	0.5	15.6	0	0	0	0	7.8	68.3	0.1	76.1	

Start Time	Paseo Grande Southbound				Foothill Parkway Westbound				Parking Lot Driveway Northbound				Green River Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	7	0	29	36	0	74	5	79	0	0	0	0	34	356	2	392	507
04:30 PM	12	0	39	51	0	78	2	80	0	0	0	0	39	348	0	387	518
04:45 PM	7	0	30	37	0	68	1	69	0	0	0	0	27	368	0	395	501
05:00 PM	6	0	32	38	1	67	3	71	0	0	0	0	37	380	0	417	526
Total Volume	32	0	130	162	1	287	11	299	0	0	0	0	137	1452	2	1591	2052
% App. Total	19.8	0	80.2		0.3	96	3.7		0	0	0		8.6	91.3	0.1		
PHF	.667	.000	.833	.794	.250	.920	.550	.934	.000	.000	.000	.000	.878	.955	.250	.954	.975

City of Corona
 N/S: Paseo Grande
 E/W: Green River Road/Foothill Parkway
 Weather: Clear

File Name : 04_COR_Paseo G_Green_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:30 PM				04:00 PM				03:30 PM				04:15 PM			
+0 mins.	8	0	45	53	0	82	1	83	0	0	0	0	34	356	2	392
+15 mins.	8	1	39	48	0	74	5	79	0	0	0	0	39	348	0	387
+30 mins.	9	0	29	38	0	78	2	80	0	0	0	0	27	368	0	395
+45 mins.	7	0	29	36	0	68	1	69	0	0	0	0	37	380	0	417
Total Volume	32	1	142	175	0	302	9	311	0	0	0	0	137	1452	2	1591
% App. Total	18.3	0.6	81.1		0	97.1	2.9		0	0	0		8.6	91.3	0.1	
PHF	.889	.250	.789	.825	.000	.921	.450	.937	.000	.000	.000	.000	.878	.955	.250	.954

City of Corona
 N/S: Border Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 05_COR_Border_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Border Avenue Southbound			Foothill Parkway Westbound			Foothill Parkway Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
05:30 AM	0	10	10	304	0	304	2	8	10	324
05:45 AM	4	8	12	260	0	260	0	5	5	277
Total	4	18	22	564	0	564	2	13	15	601
06:00 AM	1	11	12	264	0	264	0	8	8	284
06:15 AM	1	15	16	244	0	244	2	17	19	279
06:30 AM	3	14	17	227	3	230	3	15	18	265
06:45 AM	5	8	13	208	0	208	4	26	30	251
Total	10	48	58	943	3	946	9	66	75	1079
07:00 AM	8	12	20	194	2	196	1	52	53	269
07:15 AM	10	14	24	217	3	220	4	69	73	317
07:30 AM	5	14	19	226	10	236	8	55	63	318
07:45 AM	3	4	7	225	6	231	4	49	53	291
Total	26	44	70	862	21	883	17	225	242	1195
08:00 AM	2	8	10	209	6	215	1	38	39	264
08:15 AM	5	8	13	240	8	248	1	46	47	308
08:30 AM	6	9	15	223	7	230	4	37	41	286
08:45 AM	3	8	11	203	3	206	1	34	35	252
Total	16	33	49	875	24	899	7	155	162	1110
Grand Total	56	143	199	3244	48	3292	35	459	494	3985
Apprch %	28.1	71.9		98.5	1.5		7.1	92.9		
Total %	1.4	3.6	5	81.4	1.2	82.6	0.9	11.5	12.4	

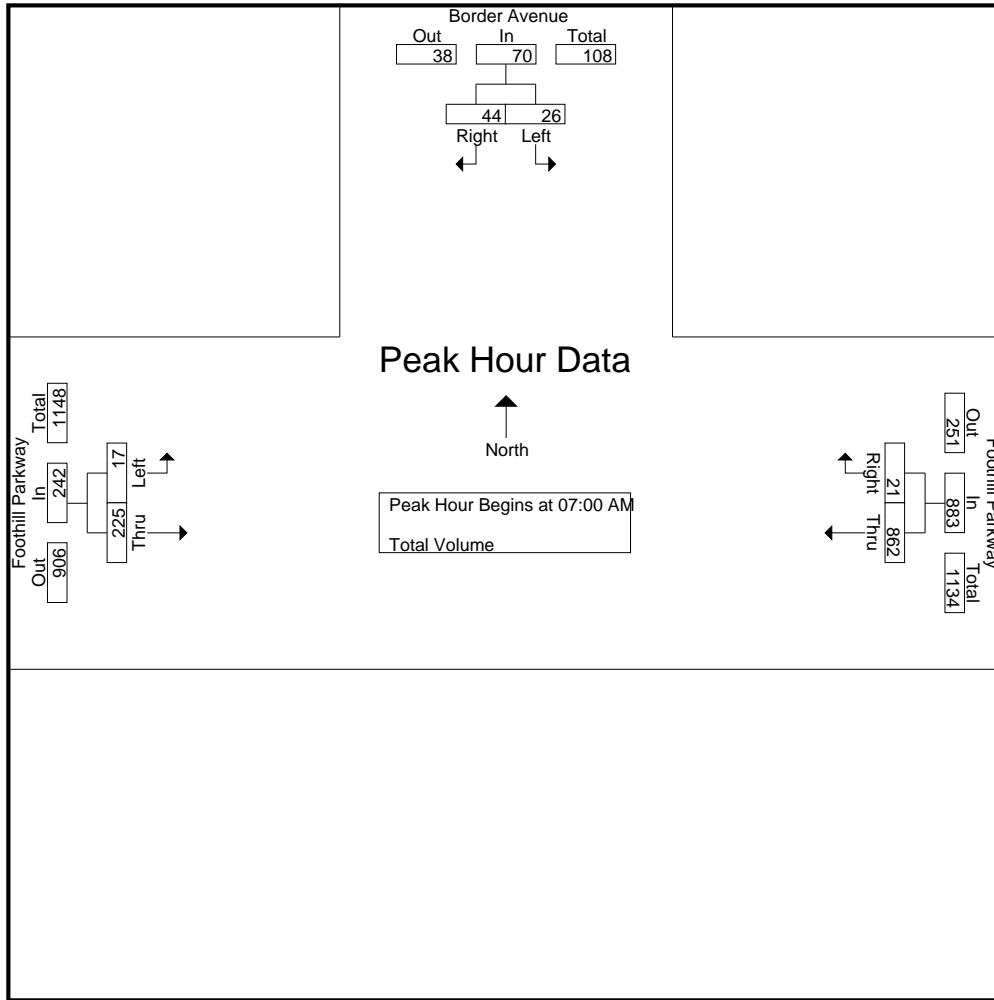
Start Time	Border Avenue Southbound			Foothill Parkway Westbound			Foothill Parkway Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	8	12	20	194	2	196	1	52	53	269
07:15 AM	10	14	24	217	3	220	4	69	73	317
07:30 AM	5	14	19	226	10	236	8	55	63	318
07:45 AM	3	4	7	225	6	231	4	49	53	291
Total Volume	26	44	70	862	21	883	17	225	242	1195
% App. Total	37.1	62.9		97.6	2.4		7	93		
PHF	.650	.786	.729	.954	.525	.935	.531	.815	.829	.939

Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Corona
 N/S: Border Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 05_COR_Border_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	06:45 AM			05:30 AM			07:00 AM		
+0 mins.	5	8	13	304	0	304	1	52	53
+15 mins.	8	12	20	260	0	260	4	69	73
+30 mins.	10	14	24	264	0	264	8	55	63
+45 mins.	5	14	19	244	0	244	4	49	53
Total Volume	28	48	76	1072	0	1072	17	225	242
% App. Total	36.8	63.2		100	0		7	93	
PHF	.700	.857	.792	.882	.000	.882	.531	.815	.829

City of Corona
 N/S: Border Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 05_COR_Border_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

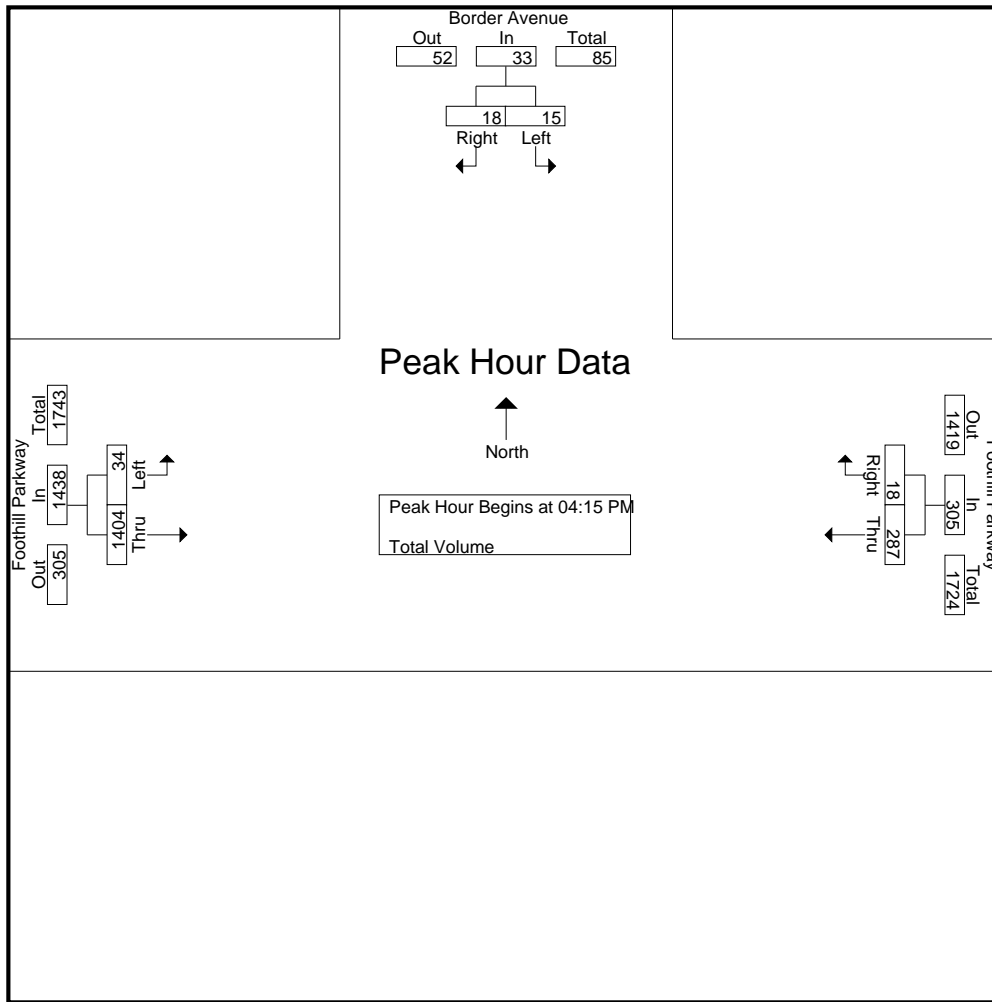
Groups Printed- Total Volume

Start Time	Border Avenue Southbound			Foothill Parkway Westbound			Foothill Parkway Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:30 PM	2	4	6	63	11	74	10	291	301	381
03:45 PM	6	5	11	58	4	62	11	291	302	375
Total	8	9	17	121	15	136	21	582	603	756
04:00 PM	5	6	11	77	6	83	11	304	315	409
04:15 PM	6	5	11	80	4	84	11	339	350	445
04:30 PM	3	4	7	75	3	78	10	332	342	427
04:45 PM	1	3	4	69	8	77	7	361	368	449
Total	15	18	33	301	21	322	39	1336	1375	1730
05:00 PM	5	6	11	63	3	66	6	372	378	455
05:15 PM	3	7	10	76	8	84	18	304	322	416
05:30 PM	1	3	4	58	7	65	16	318	334	403
05:45 PM	7	3	10	65	8	73	12	270	282	365
Total	16	19	35	262	26	288	52	1264	1316	1639
06:00 PM	7	8	15	58	6	64	9	273	282	361
06:15 PM	4	2	6	63	5	68	11	233	244	318
Grand Total	50	56	106	805	73	878	132	3688	3820	4804
Apprch %	47.2	52.8		91.7	8.3		3.5	96.5		
Total %	1	1.2	2.2	16.8	1.5	18.3	2.7	76.8	79.5	

Start Time	Border Avenue Southbound			Foothill Parkway Westbound			Foothill Parkway Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	6	5	11	80	4	84	11	339	350	445
04:30 PM	3	4	7	75	3	78	10	332	342	427
04:45 PM	1	3	4	69	8	77	7	361	368	449
05:00 PM	5	6	11	63	3	66	6	372	378	455
Total Volume	15	18	33	287	18	305	34	1404	1438	1776
% App. Total	45.5	54.5		94.1	5.9		2.4	97.6		
PHF	.625	.750	.750	.897	.563	.908	.773	.944	.951	.976

City of Corona
 N/S: Border Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 05_COR_Border_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:45 PM			04:00 PM			04:15 PM		
+0 mins.	6	5	11	77	6	83	11	339	350
+15 mins.	5	6	11	80	4	84	10	332	342
+30 mins.	6	5	11	75	3	78	7	361	368
+45 mins.	3	4	7	69	8	77	6	372	378
Total Volume	20	20	40	301	21	322	34	1404	1438
% App. Total	50	50		93.5	6.5		2.4	97.6	
PHF	.833	.833	.909	.941	.656	.958	.773	.944	.951

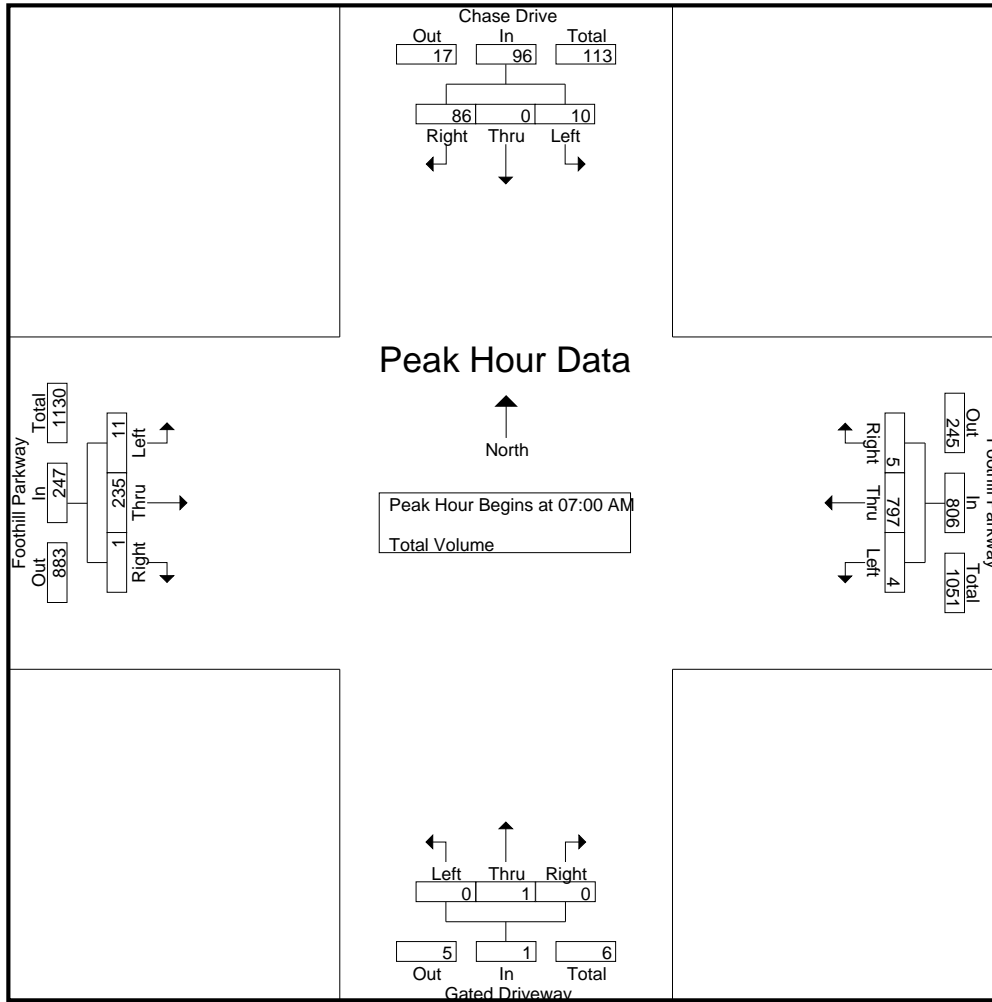
City of Corona
 N/S: Chase Drive
 E/W: Foothill Parkway
 Weather: Clear

File Name : 06_COR_Chase_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Chase Drive Southbound				Foothill Parkway Westbound				Gated Driveway Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	0	0	22	22	0	266	0	266	0	0	0	0	0	8	0	8	296
05:45 AM	0	0	21	21	0	256	0	256	0	0	0	0	2	18	0	20	297
Total	0	0	43	43	0	522	0	522	0	0	0	0	2	26	0	28	593
06:00 AM	0	0	23	23	0	238	0	238	0	0	0	0	2	15	0	17	278
06:15 AM	1	0	13	14	0	220	1	221	0	0	0	0	0	18	0	18	253
06:30 AM	0	0	18	18	0	203	1	204	0	0	0	0	2	12	0	14	236
06:45 AM	0	0	17	17	1	177	1	179	0	0	0	0	1	32	0	33	229
Total	1	0	71	72	1	838	3	842	0	0	0	0	5	77	0	82	996
07:00 AM	3	0	20	23	2	181	1	184	0	0	0	0	2	64	1	67	274
07:15 AM	1	0	22	23	1	209	1	211	0	1	0	1	2	74	0	76	311
07:30 AM	4	0	23	27	0	210	1	211	0	0	0	0	3	50	0	53	291
07:45 AM	2	0	21	23	1	197	2	200	0	0	0	0	4	47	0	51	274
Total	10	0	86	96	4	797	5	806	0	1	0	1	11	235	1	247	1150
08:00 AM	2	0	14	16	0	182	1	183	0	0	0	0	7	49	0	56	255
08:15 AM	1	0	25	26	0	218	4	222	0	0	0	0	9	35	0	44	292
08:30 AM	4	0	34	38	2	187	1	190	0	0	0	0	7	39	0	46	274
08:45 AM	4	0	17	21	3	202	2	207	0	0	0	0	7	45	0	52	280
Total	11	0	90	101	5	789	8	802	0	0	0	0	30	168	0	198	1101
Grand Total	22	0	290	312	10	2946	16	2972	0	1	0	1	48	506	1	555	3840
Apprch %	7.1	0	92.9		0.3	99.1	0.5		0	100	0		8.6	91.2	0.2		
Total %	0.6	0	7.6	8.1	0.3	76.7	0.4	77.4	0	0	0	0	1.2	13.2	0	14.5	

Start Time	Chase Drive Southbound				Foothill Parkway Westbound				Gated Driveway Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	0	20	23	2	181	1	184	0	0	0	0	2	64	1	67	274
07:15 AM	1	0	22	23	1	209	1	211	0	1	0	1	2	74	0	76	311
07:30 AM	4	0	23	27	0	210	1	211	0	0	0	0	3	50	0	53	291
07:45 AM	2	0	21	23	1	197	2	200	0	0	0	0	4	47	0	51	274
Total Volume	10	0	86	96	4	797	5	806	0	1	0	1	11	235	1	247	1150
% App. Total	10.4	0	89.6		0.5	98.9	0.6		0	100	0		4.5	95.1	0.4		
PHF	.625	.000	.935	.889	.500	.949	.625	.955	.000	.250	.000	.250	.688	.794	.250	.813	.924



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				05:30 AM				06:30 AM				07:00 AM			
+0 mins.	2	0	21	23	0	266	0	266	0	0	0	0	2	64	1	67
+15 mins.	2	0	14	16	0	256	0	256	0	0	0	0	2	74	0	76
+30 mins.	1	0	25	26	0	238	0	238	0	0	0	0	3	50	0	53
+45 mins.	4	0	34	38	0	220	1	221	0	1	0	1	4	47	0	51
Total Volume	9	0	94	103	0	980	1	981	0	1	0	1	11	235	1	247
% App. Total	8.7	0	91.3		0	99.9	0.1		0	100	0		4.5	95.1	0.4	
PHF	.563	.000	.691	.678	.000	.921	.250	.922	.000	.250	.000	.250	.688	.794	.250	.813

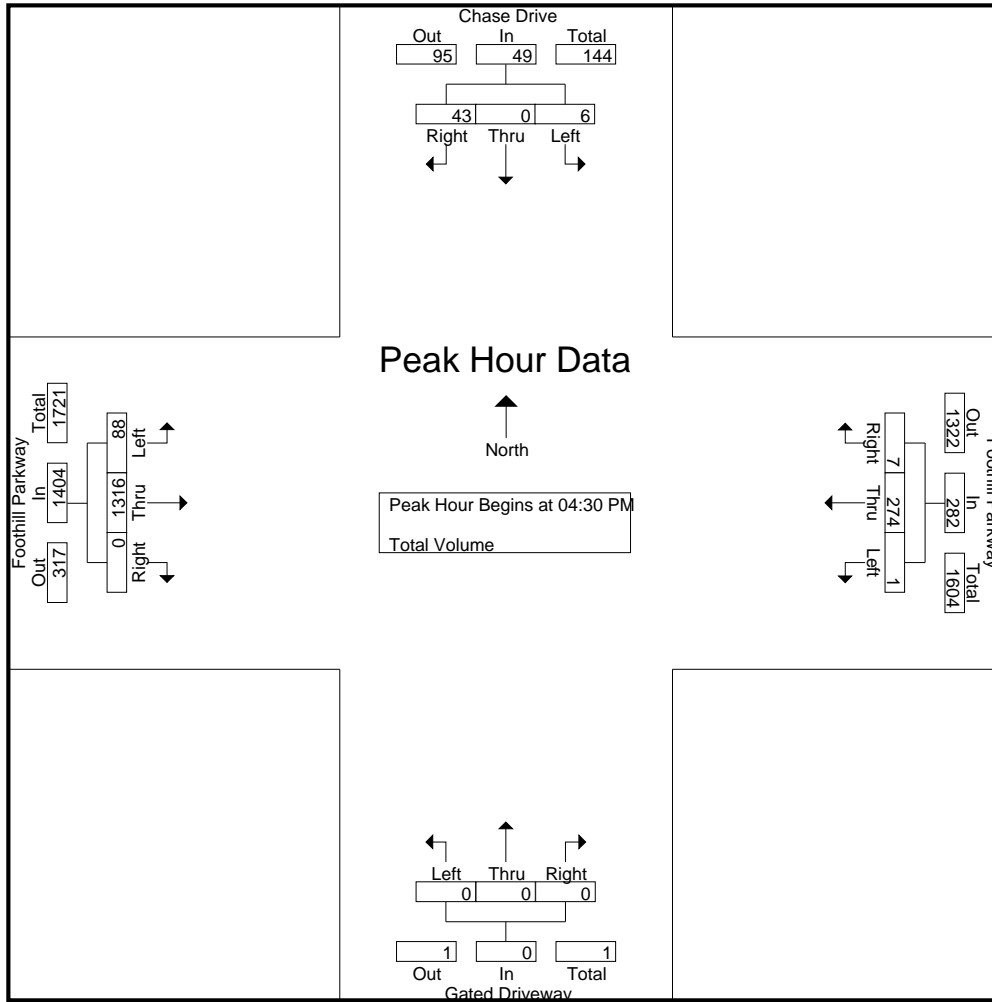
City of Corona
 N/S: Chase Drive
 E/W: Foothill Parkway
 Weather: Clear

File Name : 06_COR_Chase_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Chase Drive Southbound				Foothill Parkway Westbound				Gated Driveway Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	2	0	16	18	0	63	4	67	0	0	0	0	17	269	0	286	371
03:45 PM	2	0	6	8	3	72	1	76	0	0	0	0	14	300	0	314	398
Total	4	0	22	26	3	135	5	143	0	0	0	0	31	569	0	600	769
04:00 PM	1	0	9	10	0	62	3	65	0	0	0	0	19	298	0	317	392
04:15 PM	2	0	5	7	0	64	2	66	0	0	0	0	17	313	0	330	403
04:30 PM	1	0	7	8	1	73	0	74	0	0	0	0	19	336	0	355	437
04:45 PM	1	0	12	13	0	72	1	73	0	0	0	0	27	346	0	373	459
Total	5	0	33	38	1	271	6	278	0	0	0	0	82	1293	0	1375	1691
05:00 PM	1	0	12	13	0	65	2	67	0	0	0	0	20	334	0	354	434
05:15 PM	3	0	12	15	0	64	4	68	0	0	0	0	22	300	0	322	405
05:30 PM	4	0	14	18	0	55	1	56	0	0	0	0	18	287	0	305	379
05:45 PM	1	0	5	6	0	62	1	63	0	0	0	0	18	251	0	269	338
Total	9	0	43	52	0	246	8	254	0	0	0	0	78	1172	0	1250	1556
06:00 PM	1	0	8	9	0	56	0	56	0	0	0	0	13	255	0	268	333
06:15 PM	0	0	7	7	0	42	1	43	0	0	1	1	20	234	1	255	306
Grand Total	19	0	113	132	4	750	20	774	0	0	1	1	224	3523	1	3748	4655
Apprch %	14.4	0	85.6		0.5	96.9	2.6		0	0	100		6	94	0		
Total %	0.4	0	2.4	2.8	0.1	16.1	0.4	16.6	0	0	0	0	4.8	75.7	0	80.5	

Start Time	Chase Drive Southbound				Foothill Parkway Westbound				Gated Driveway Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	7	8	1	73	0	74	0	0	0	0	19	336	0	355	437
04:45 PM	1	0	12	13	0	72	1	73	0	0	0	0	27	346	0	373	459
05:00 PM	1	0	12	13	0	65	2	67	0	0	0	0	20	334	0	354	434
05:15 PM	3	0	12	15	0	64	4	68	0	0	0	0	22	300	0	322	405
Total Volume	6	0	43	49	1	274	7	282	0	0	0	0	88	1316	0	1404	1735
% App. Total	12.2	0	87.8		0.4	97.2	2.5		0	0	0		6.3	93.7	0		
PHF	.500	.000	.896	.817	.250	.938	.438	.953	.000	.000	.000	.000	.815	.951	.000	.941	.945



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				05:30 PM				04:15 PM			
+0 mins.	1	0	12	13	1	73	0	74	0	0	0	0	17	313	0	330
+15 mins.	1	0	12	13	0	72	1	73	0	0	0	0	19	336	0	355
+30 mins.	3	0	12	15	0	65	2	67	0	0	0	0	27	346	0	373
+45 mins.	4	0	14	18	0	64	4	68	0	0	1	1	20	334	0	354
Total Volume	9	0	50	59	1	274	7	282	0	0	1	1	83	1329	0	1412
% App. Total	15.3	0	84.7		0.4	97.2	2.5		0	0	100		5.9	94.1	0	
PHF	.563	.000	.893	.819	.250	.938	.438	.953	.000	.000	.250	.250	.769	.960	.000	.946

City of Corona
 N/S: Lincoln Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 07_COR_Lincoln_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

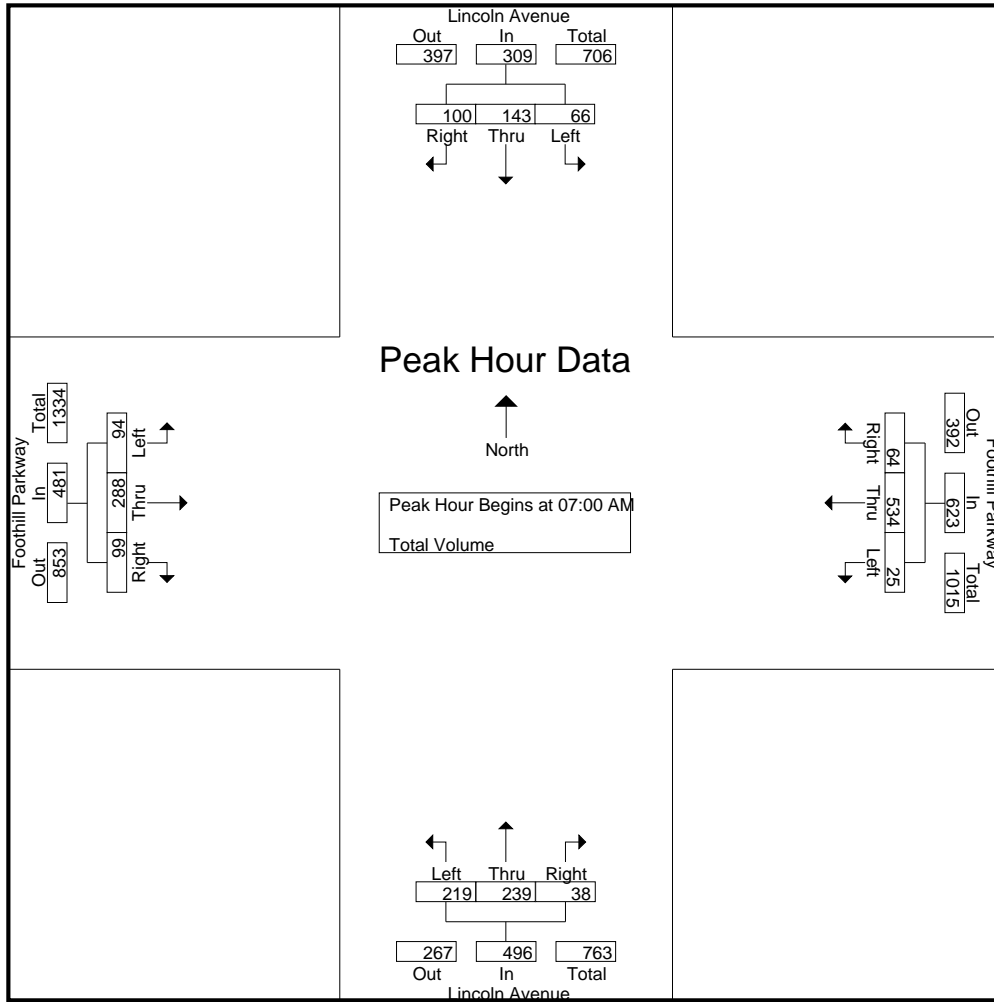
Groups Printed- Total Volume

Start Time	Lincoln Avenue Southbound				Foothill Parkway Westbound				Lincoln Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	6	0	13	19	0	208	2	210	42	14	1	57	2	10	2	14	300
05:45 AM	1	5	9	15	0	210	4	214	37	12	0	49	3	13	1	17	295
Total	7	5	22	34	0	418	6	424	79	26	1	106	5	23	3	31	595
06:00 AM	4	3	14	21	0	162	5	167	44	16	0	60	4	17	1	22	270
06:15 AM	5	2	19	26	0	153	3	156	44	36	2	82	7	21	5	33	297
06:30 AM	5	6	16	27	1	132	10	143	51	22	1	74	11	25	2	38	282
06:45 AM	8	9	10	27	0	121	3	124	57	25	1	83	21	38	9	68	302
Total	22	20	59	101	1	568	21	590	196	99	4	299	43	101	17	161	1151
07:00 AM	20	25	13	58	0	122	7	129	44	42	7	93	26	85	11	122	402
07:15 AM	24	60	21	105	5	99	12	116	52	64	15	131	34	89	47	170	522
07:30 AM	15	31	30	76	16	159	22	197	64	82	10	156	18	64	28	110	539
07:45 AM	7	27	36	70	4	154	23	181	59	51	6	116	16	50	13	79	446
Total	66	143	100	309	25	534	64	623	219	239	38	496	94	288	99	481	1909
08:00 AM	2	10	15	27	1	139	5	145	49	43	3	95	14	38	7	59	326
08:15 AM	4	17	18	39	2	141	8	151	58	28	0	86	12	59	3	74	350
08:30 AM	12	11	13	36	2	144	10	156	45	23	0	68	15	47	6	68	328
08:45 AM	7	23	21	51	3	125	8	136	42	39	2	83	12	39	10	61	331
Total	25	61	67	153	8	549	31	588	194	133	5	332	53	183	26	262	1335
Grand Total	120	229	248	597	34	2069	122	2225	688	497	48	1233	195	595	145	935	4990
Apprch %	20.1	38.4	41.5		1.5	93	5.5		55.8	40.3	3.9		20.9	63.6	15.5		
Total %	2.4	4.6	5	12	0.7	41.5	2.4	44.6	13.8	10	1	24.7	3.9	11.9	2.9	18.7	

Start Time	Lincoln Avenue Southbound				Foothill Parkway Westbound				Lincoln Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	20	25	13	58	0	122	7	129	44	42	7	93	26	85	11	122	402
07:15 AM	24	60	21	105	5	99	12	116	52	64	15	131	34	89	47	170	522
07:30 AM	15	31	30	76	16	159	22	197	64	82	10	156	18	64	28	110	539
07:45 AM	7	27	36	70	4	154	23	181	59	51	6	116	16	50	13	79	446
Total Volume	66	143	100	309	25	534	64	623	219	239	38	496	94	288	99	481	1909
% App. Total	21.4	46.3	32.4		4	85.7	10.3		44.2	48.2	7.7		19.5	59.9	20.6		
PHF	.688	.596	.694	.736	.391	.840	.696	.791	.855	.729	.633	.795	.691	.809	.527	.707	.885

City of Corona
 N/S: Lincoln Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 07_COR_Lincoln_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				05:30 AM				07:15 AM				07:00 AM			
+0 mins.	20	25	13	58	0	208	2	210	52	64	15	131	26	85	11	122
+15 mins.	24	60	21	105	0	210	4	214	64	82	10	156	34	89	47	170
+30 mins.	15	31	30	76	0	162	5	167	59	51	6	116	18	64	28	110
+45 mins.	7	27	36	70	0	153	3	156	49	43	3	95	16	50	13	79
Total Volume	66	143	100	309	0	733	14	747	224	240	34	498	94	288	99	481
% App. Total	21.4	46.3	32.4		0	98.1	1.9		45	48.2	6.8		19.5	59.9	20.6	
PHF	.688	.596	.694	.736	.000	.873	.700	.873	.875	.732	.567	.798	.691	.809	.527	.707

City of Corona
 N/S: Lincoln Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 07_COR_Lincoln_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

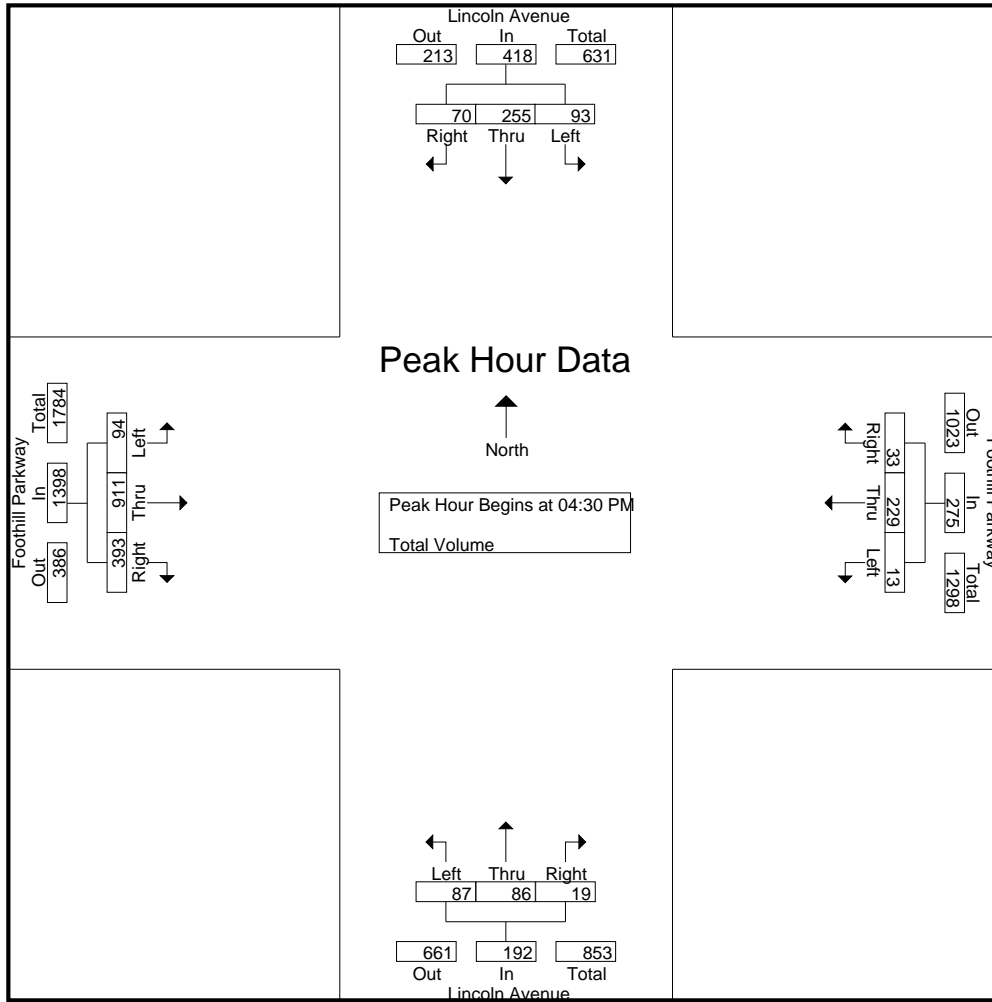
Groups Printed- Total Volume

Start Time	Lincoln Avenue Southbound				Foothill Parkway Westbound				Lincoln Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	22	35	9	66	5	69	16	90	18	26	3	47	14	181	71	266	469
03:45 PM	18	73	14	105	3	57	8	68	15	19	3	37	17	213	80	310	520
Total	40	108	23	171	8	126	24	158	33	45	6	84	31	394	151	576	989
04:00 PM	24	47	19	90	7	65	9	81	19	26	4	49	15	207	80	302	522
04:15 PM	21	57	12	90	5	62	10	77	32	23	4	59	12	204	90	306	532
04:30 PM	23	61	17	101	3	60	10	73	27	26	7	60	18	246	86	350	584
04:45 PM	18	52	16	86	2	66	10	78	22	22	5	49	26	223	103	352	565
Total	86	217	64	367	17	253	39	309	100	97	20	217	71	880	359	1310	2203
05:00 PM	24	51	17	92	3	55	7	65	19	27	6	52	23	223	91	337	546
05:15 PM	28	91	20	139	5	48	6	59	19	11	1	31	27	219	113	359	588
05:30 PM	21	59	14	94	9	67	11	87	16	21	2	39	16	177	111	304	524
05:45 PM	26	49	6	81	6	67	11	84	13	22	1	36	17	186	58	261	462
Total	99	250	57	406	23	237	35	295	67	81	10	158	83	805	373	1261	2120
06:00 PM	25	33	10	68	7	53	5	65	17	22	5	44	11	186	59	256	433
06:15 PM	16	29	13	58	2	58	13	73	16	13	3	32	13	186	59	258	421
Grand Total	266	637	167	1070	57	727	116	900	233	258	44	535	209	2451	1001	3661	6166
Apprch %	24.9	59.5	15.6		6.3	80.8	12.9		43.6	48.2	8.2		5.7	66.9	27.3		
Total %	4.3	10.3	2.7	17.4	0.9	11.8	1.9	14.6	3.8	4.2	0.7	8.7	3.4	39.8	16.2	59.4	

Start Time	Lincoln Avenue Southbound				Foothill Parkway Westbound				Lincoln Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	23	61	17	101	3	60	10	73	27	26	7	60	18	246	86	350	584
04:45 PM	18	52	16	86	2	66	10	78	22	22	5	49	26	223	103	352	565
05:00 PM	24	51	17	92	3	55	7	65	19	27	6	52	23	223	91	337	546
05:15 PM	28	91	20	139	5	48	6	59	19	11	1	31	27	219	113	359	588
Total Volume	93	255	70	418	13	229	33	275	87	86	19	192	94	911	393	1398	2283
% App. Total	22.2	61	16.7		4.7	83.3	12		45.3	44.8	9.9		6.7	65.2	28.1		
PHF	.830	.701	.875	.752	.650	.867	.825	.881	.806	.796	.679	.800	.870	.926	.869	.974	.971

City of Corona
 N/S: Lincoln Avenue
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File Name : 07_COR_Lincoln_Foothill PM
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Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				03:30 PM				04:15 PM				04:30 PM			
+0 mins.	23	61	17	101	5	69	16	90	32	23	4	59	18	246	86	350
+15 mins.	18	52	16	86	3	57	8	68	27	26	7	60	26	223	103	352
+30 mins.	24	51	17	92	7	65	9	81	22	22	5	49	23	223	91	337
+45 mins.	28	91	20	139	5	62	10	77	19	27	6	52	27	219	113	359
Total Volume	93	255	70	418	20	253	43	316	100	98	22	220	94	911	393	1398
% App. Total	22.2	61	16.7		6.3	80.1	13.6		45.5	44.5	10		6.7	65.2	28.1	
PHF	.830	.701	.875	.752	.714	.917	.672	.878	.781	.907	.786	.917	.870	.926	.869	.974

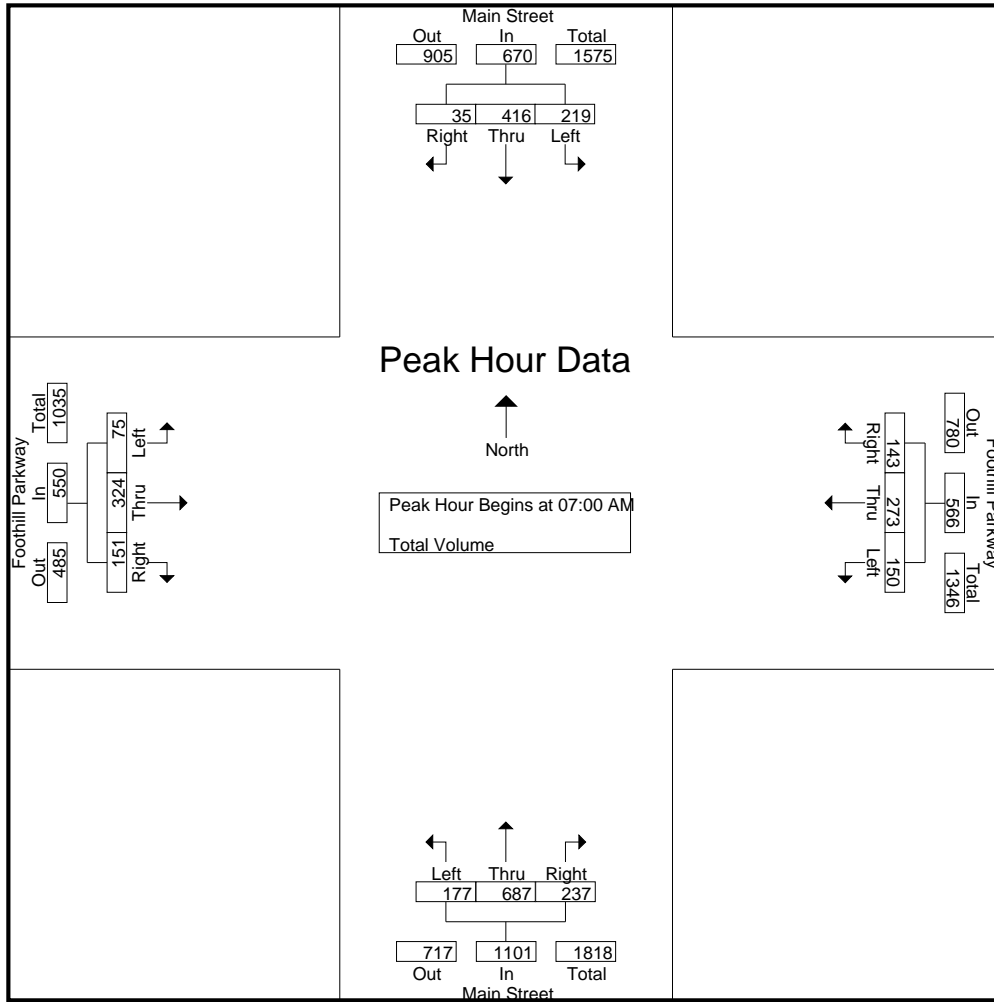
City of Corona
 N/S: Main Street
 E/W: Foothill Parkway
 Weather: Clear

File Name : 08_COR_Main_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Main Street Southbound				Foothill Parkway Westbound				Main Street Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	7	13	0	20	2	4	18	24	3	185	12	200	2	17	1	20	264
05:45 AM	7	17	0	24	3	6	24	33	4	175	13	192	3	18	3	24	273
Total	14	30	0	44	5	10	42	57	7	360	25	392	5	35	4	44	537
06:00 AM	8	21	0	29	8	21	18	47	6	143	3	152	2	23	3	28	256
06:15 AM	17	25	0	42	2	13	17	32	10	145	12	167	3	31	5	39	280
06:30 AM	22	32	1	55	9	16	18	43	13	129	28	170	2	41	10	53	321
06:45 AM	32	56	4	92	10	31	19	60	16	116	20	152	1	53	16	70	374
Total	79	134	5	218	29	81	72	182	45	533	63	641	8	148	34	190	1231
07:00 AM	33	99	7	139	30	60	19	109	32	124	20	176	9	68	40	117	541
07:15 AM	53	169	14	236	47	77	38	162	51	188	62	301	32	85	57	174	873
07:30 AM	60	76	12	148	48	98	52	198	67	231	89	387	21	84	25	130	863
07:45 AM	73	72	2	147	25	38	34	97	27	144	66	237	13	87	29	129	610
Total	219	416	35	670	150	273	143	566	177	687	237	1101	75	324	151	550	2887
08:00 AM	38	35	0	73	27	45	44	116	12	105	35	152	6	50	7	63	404
08:15 AM	43	65	1	109	20	27	44	91	13	127	40	180	4	66	9	79	459
08:30 AM	38	53	4	95	15	41	39	95	22	107	36	165	8	54	10	72	427
08:45 AM	37	46	1	84	19	48	28	95	10	114	36	160	2	42	6	50	389
Total	156	199	6	361	81	161	155	397	57	453	147	657	20	212	32	264	1679
Grand Total	468	779	46	1293	265	525	412	1202	286	2033	472	2791	108	719	221	1048	6334
Apprch %	36.2	60.2	3.6		22	43.7	34.3		10.2	72.8	16.9		10.3	68.6	21.1		
Total %	7.4	12.3	0.7	20.4	4.2	8.3	6.5	19	4.5	32.1	7.5	44.1	1.7	11.4	3.5	16.5	

Start Time	Main Street Southbound				Foothill Parkway Westbound				Main Street Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	33	99	7	139	30	60	19	109	32	124	20	176	9	68	40	117	541
07:15 AM	53	169	14	236	47	77	38	162	51	188	62	301	32	85	57	174	873
07:30 AM	60	76	12	148	48	98	52	198	67	231	89	387	21	84	25	130	863
07:45 AM	73	72	2	147	25	38	34	97	27	144	66	237	13	87	29	129	610
Total Volume	219	416	35	670	150	273	143	566	177	687	237	1101	75	324	151	550	2887
% App. Total	32.7	62.1	5.2		26.5	48.2	25.3		16.1	62.4	21.5		13.6	58.9	27.5		
PHF	.750	.615	.625	.710	.781	.696	.688	.715	.660	.744	.666	.711	.586	.931	.662	.790	.827



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:00 AM				07:00 AM			
+0 mins.	33	99	7	139	47	77	38	162	32	124	20	176	9	68	40	117
+15 mins.	53	169	14	236	48	98	52	198	51	188	62	301	32	85	57	174
+30 mins.	60	76	12	148	25	38	34	97	67	231	89	387	21	84	25	130
+45 mins.	73	72	2	147	27	45	44	116	27	144	66	237	13	87	29	129
Total Volume	219	416	35	670	147	258	168	573	177	687	237	1101	75	324	151	550
% App. Total	32.7	62.1	5.2		25.7	45	29.3		16.1	62.4	21.5		13.6	58.9	27.5	
PHF	.750	.615	.625	.710	.766	.658	.808	.723	.660	.744	.666	.711	.586	.931	.662	.790

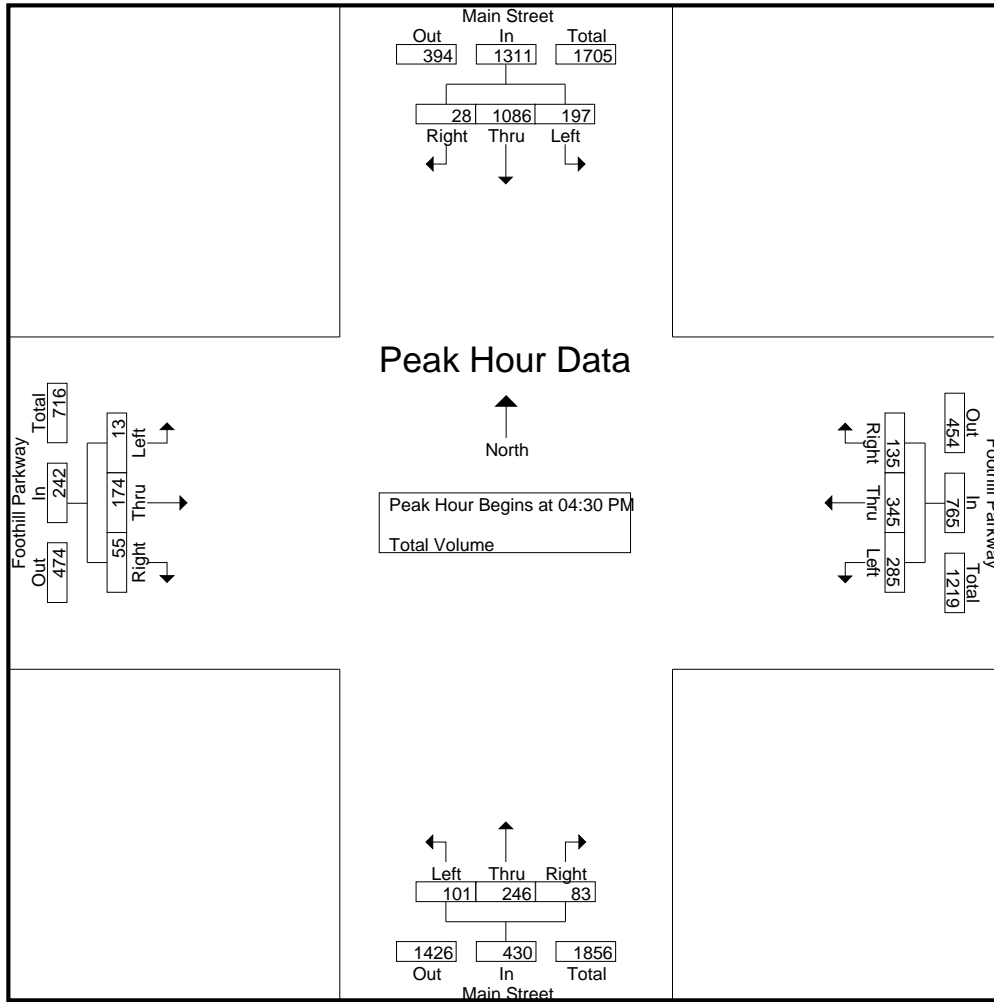
City of Corona
 N/S: Main Street
 E/W: Foothill Parkway
 Weather: Clear

File Name : 08_COR_Main_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Main Street Southbound				Foothill Parkway Westbound				Main Street Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	50	235	3	288	55	82	38	175	29	70	32	131	3	39	12	54	648
03:45 PM	48	240	8	296	54	89	33	176	30	79	44	153	3	57	15	75	700
Total	98	475	11	584	109	171	71	351	59	149	76	284	6	96	27	129	1348
04:00 PM	54	244	4	302	73	80	31	184	28	65	21	114	5	31	11	47	647
04:15 PM	54	238	7	299	55	88	43	186	26	64	29	119	4	47	16	67	671
04:30 PM	47	262	8	317	75	87	31	193	34	57	29	120	4	37	10	51	681
04:45 PM	55	283	9	347	65	89	41	195	30	60	17	107	6	49	9	64	713
Total	210	1027	28	1265	268	344	146	758	118	246	96	460	19	164	46	229	2712
05:00 PM	60	268	5	333	64	73	32	169	19	61	13	93	1	43	17	61	656
05:15 PM	35	273	6	314	81	96	31	208	18	68	24	110	2	45	19	66	698
05:30 PM	51	215	9	275	73	81	41	195	26	68	17	111	0	51	17	68	649
05:45 PM	55	199	2	256	57	90	33	180	29	71	26	126	1	43	10	54	616
Total	201	955	22	1178	275	340	137	752	92	268	80	440	4	182	63	249	2619
06:00 PM	52	182	9	243	57	71	33	161	26	51	20	97	2	31	11	44	545
06:15 PM	48	194	3	245	57	79	32	168	13	51	25	89	1	33	10	44	546
Grand Total	609	2833	73	3515	766	1005	419	2190	308	765	297	1370	32	506	157	695	7770
Apprch %	17.3	80.6	2.1		35	45.9	19.1		22.5	55.8	21.7		4.6	72.8	22.6		
Total %	7.8	36.5	0.9	45.2	9.9	12.9	5.4	28.2	4	9.8	3.8	17.6	0.4	6.5	2	8.9	

Start Time	Main Street Southbound				Foothill Parkway Westbound				Main Street Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	47	262	8	317	75	87	31	193	34	57	29	120	4	37	10	51	681
04:45 PM	55	283	9	347	65	89	41	195	30	60	17	107	6	49	9	64	713
05:00 PM	60	268	5	333	64	73	32	169	19	61	13	93	1	43	17	61	656
05:15 PM	35	273	6	314	81	96	31	208	18	68	24	110	2	45	19	66	698
Total Volume	197	1086	28	1311	285	345	135	765	101	246	83	430	13	174	55	242	2748
% App. Total	15	82.8	2.1		37.3	45.1	17.6		23.5	57.2	19.3		5.4	71.9	22.7		
PHF	.821	.959	.778	.945	.880	.898	.823	.919	.743	.904	.716	.896	.542	.888	.724	.917	.964



Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				03:30 PM				04:45 PM			
+0 mins.	47	262	8	317	65	89	41	195	29	70	32	131	6	49	9	64
+15 mins.	55	283	9	347	64	73	32	169	30	79	44	153	1	43	17	61
+30 mins.	60	268	5	333	81	96	31	208	28	65	21	114	2	45	19	66
+45 mins.	35	273	6	314	73	81	41	195	26	64	29	119	0	51	17	68
Total Volume	197	1086	28	1311	283	339	145	767	113	278	126	517	9	188	62	259
% App. Total	15	82.8	2.1		36.9	44.2	18.9		21.9	53.8	24.4		3.5	72.6	23.9	
PHF	.821	.959	.778	.945	.873	.883	.884	.922	.942	.880	.716	.845	.375	.922	.816	.952

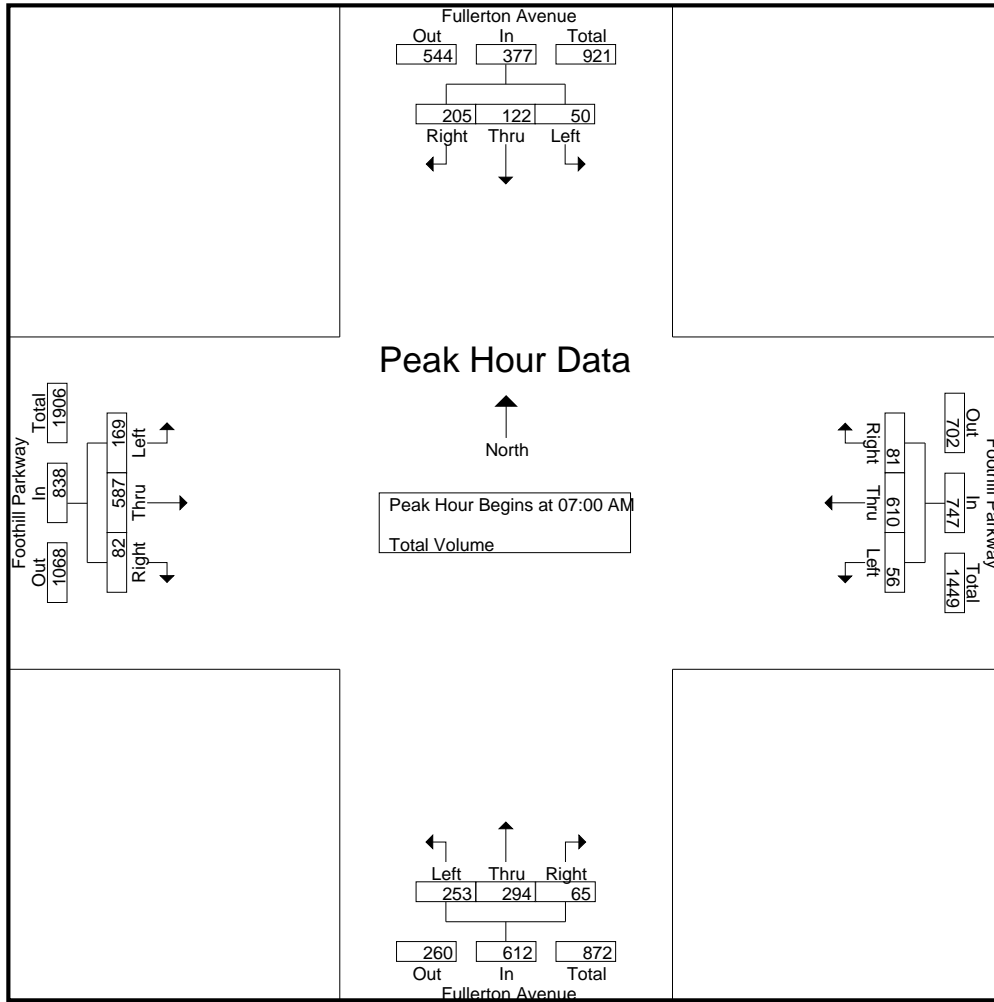
City of Corona
 N/S: Fullerton Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 09_COR_Fullerton_Foothill AM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Fullerton Avenue Southbound				Foothill Parkway Westbound				Fullerton Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:30 AM	2	1	7	10	2	167	3	172	10	11	6	27	3	23	1	27	236
05:45 AM	2	2	7	11	4	151	1	156	9	12	5	26	4	27	0	31	224
Total	4	3	14	21	6	318	4	328	19	23	11	53	7	50	1	58	460
06:00 AM	4	6	5	15	4	145	2	151	9	14	9	32	2	27	1	30	228
06:15 AM	3	5	6	14	1	122	2	125	15	20	4	39	5	35	1	41	219
06:30 AM	0	7	8	15	11	145	5	161	13	23	15	51	7	59	5	71	298
06:45 AM	5	11	11	27	5	124	3	132	14	20	13	47	9	85	4	98	304
Total	12	29	30	71	21	536	12	569	51	77	41	169	23	206	11	240	1049
07:00 AM	10	19	31	60	6	132	11	149	35	50	16	101	36	126	7	169	479
07:15 AM	12	37	72	121	21	168	20	209	76	88	24	188	65	253	21	339	857
07:30 AM	14	44	80	138	20	193	30	243	105	85	15	205	44	120	31	195	781
07:45 AM	14	22	22	58	9	117	20	146	37	71	10	118	24	88	23	135	457
Total	50	122	205	377	56	610	81	747	253	294	65	612	169	587	82	838	2574
08:00 AM	13	21	18	52	9	102	15	126	24	35	14	73	10	56	10	76	327
08:15 AM	12	18	15	45	11	132	10	153	21	39	9	69	14	84	5	103	370
08:30 AM	7	29	23	59	6	110	12	128	20	33	11	64	15	68	5	88	339
08:45 AM	9	19	21	49	5	107	8	120	17	27	13	57	12	65	4	81	307
Total	41	87	77	205	31	451	45	527	82	134	47	263	51	273	24	348	1343
Grand Total	107	241	326	674	114	1915	142	2171	405	528	164	1097	250	1116	118	1484	5426
Apprch %	15.9	35.8	48.4		5.3	88.2	6.5		36.9	48.1	14.9		16.8	75.2	8		
Total %	2	4.4	6	12.4	2.1	35.3	2.6	40	7.5	9.7	3	20.2	4.6	20.6	2.2	27.3	

Start Time	Fullerton Avenue Southbound				Foothill Parkway Westbound				Fullerton Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	10	19	31	60	6	132	11	149	35	50	16	101	36	126	7	169	479
07:15 AM	12	37	72	121	21	168	20	209	76	88	24	188	65	253	21	339	857
07:30 AM	14	44	80	138	20	193	30	243	105	85	15	205	44	120	31	195	781
07:45 AM	14	22	22	58	9	117	20	146	37	71	10	118	24	88	23	135	457
Total Volume	50	122	205	377	56	610	81	747	253	294	65	612	169	587	82	838	2574
% App. Total	13.3	32.4	54.4		7.5	81.7	10.8		41.3	48	10.6		20.2	70	9.8		
PHF	.893	.693	.641	.683	.667	.790	.675	.769	.602	.835	.677	.746	.650	.580	.661	.618	.751



Peak Hour Analysis From 05:30 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	10	19	31	60	6	132	11	149	35	50	16	101	36	126	7	169
+15 mins.	12	37	72	121	21	168	20	209	76	88	24	188	65	253	21	339
+30 mins.	14	44	80	138	20	193	30	243	105	85	15	205	44	120	31	195
+45 mins.	14	22	22	58	9	117	20	146	37	71	10	118	24	88	23	135
Total Volume	50	122	205	377	56	610	81	747	253	294	65	612	169	587	82	838
% App. Total	13.3	32.4	54.4		7.5	81.7	10.8		41.3	48	10.6		20.2	70	9.8	
PHF	.893	.693	.641	.683	.667	.790	.675	.769	.602	.835	.677	.746	.650	.580	.661	.618

City of Corona
 N/S: Fullerton Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 09_COR_Fullerton_Foothill PM
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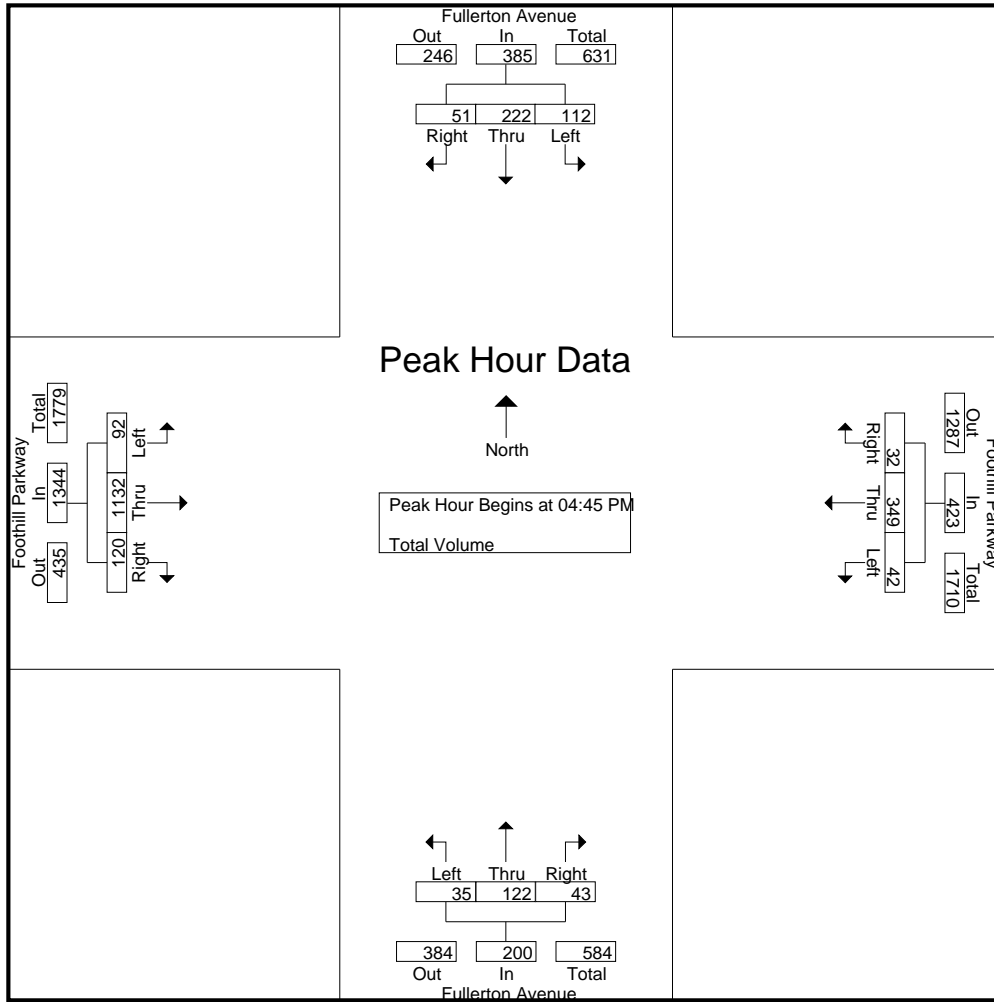
Groups Printed- Total Volume

Start Time	Fullerton Avenue Southbound				Foothill Parkway Westbound				Fullerton Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:30 PM	29	46	14	89	14	101	4	119	12	30	6	48	28	251	27	306	562
03:45 PM	15	52	13	80	8	108	10	126	19	24	6	49	19	255	17	291	546
Total	44	98	27	169	22	209	14	245	31	54	12	97	47	506	44	597	1108
04:00 PM	29	62	12	103	13	85	12	110	16	27	11	54	25	238	24	287	554
04:15 PM	25	63	13	101	13	105	9	127	13	21	13	47	21	281	30	332	607
04:30 PM	12	52	10	74	17	85	13	115	16	24	7	47	22	281	26	329	565
04:45 PM	23	51	14	88	12	96	10	118	7	27	12	46	18	306	21	345	597
Total	89	228	49	366	55	371	44	470	52	99	43	194	86	1106	101	1293	2323
05:00 PM	24	61	12	97	9	72	7	88	6	37	12	55	26	284	29	339	579
05:15 PM	39	50	17	106	8	72	8	88	9	31	8	48	26	269	34	329	571
05:30 PM	26	60	8	94	13	109	7	129	13	27	11	51	22	273	36	331	605
05:45 PM	16	39	12	67	8	108	10	126	14	14	9	37	11	256	22	289	519
Total	105	210	49	364	38	361	32	431	42	109	40	191	85	1082	121	1288	2274
06:00 PM	14	42	6	62	14	84	12	110	11	20	10	41	13	210	19	242	455
06:15 PM	17	32	13	62	20	73	1	94	14	18	11	43	30	201	28	259	458
Grand Total	269	610	144	1023	149	1098	103	1350	150	300	116	566	261	3105	313	3679	6618
Apprch %	26.3	59.6	14.1		11	81.3	7.6		26.5	53	20.5		7.1	84.4	8.5		
Total %	4.1	9.2	2.2	15.5	2.3	16.6	1.6	20.4	2.3	4.5	1.8	8.6	3.9	46.9	4.7	55.6	

Start Time	Fullerton Avenue Southbound				Foothill Parkway Westbound				Fullerton Avenue Northbound				Foothill Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	23	51	14	88	12	96	10	118	7	27	12	46	18	306	21	345	597
05:00 PM	24	61	12	97	9	72	7	88	6	37	12	55	26	284	29	339	579
05:15 PM	39	50	17	106	8	72	8	88	9	31	8	48	26	269	34	329	571
05:30 PM	26	60	8	94	13	109	7	129	13	27	11	51	22	273	36	331	605
Total Volume	112	222	51	385	42	349	32	423	35	122	43	200	92	1132	120	1344	2352
% App. Total	29.1	57.7	13.2		9.9	82.5	7.6		17.5	61	21.5		6.8	84.2	8.9		
PHF	.718	.910	.750	.908	.808	.800	.800	.820	.673	.824	.896	.909	.885	.925	.833	.974	.972

City of Corona
 N/S: Fullerton Avenue
 E/W: Foothill Parkway
 Weather: Clear

File Name : 09_COR_Fullerton_Foothill PM
 Site Code : 10519845
 Start Date : 12/5/2019
 Page No : 2























Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				03:30 PM				04:45 PM				04:15 PM			
+0 mins.	23	51	14	88	14	101	4	119	7	27	12	46	21	281	30	332
+15 mins.	24	61	12	97	8	108	10	126	6	37	12	55	22	281	26	329
+30 mins.	39	50	17	106	13	85	12	110	9	31	8	48	18	306	21	345
+45 mins.	26	60	8	94	13	105	9	127	13	27	11	51	26	284	29	339
Total Volume	112	222	51	385	48	399	35	482	35	122	43	200	87	1152	106	1345
% App. Total	29.1	57.7	13.2		10	82.8	7.3		17.5	61	21.5		6.5	85.7	7.9	
PHF	.718	.910	.750	.908	.857	.924	.729	.949	.673	.824	.896	.909	.837	.941	.883	.975

Appendix B

Existing Conditions
Intersection Analysis Worksheets

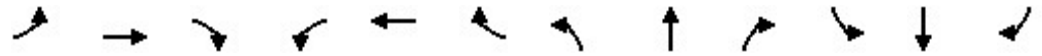
Lanes and Geometrics
 1: Serfas Club Drive & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.963			0.947				0.850
Flt Protected	0.950			0.950				0.999		0.950	0.969	
Satd. Flow (prot)	3433	3536	0	1770	3408	0	0	1762	0	1681	1715	1583
Flt Permitted	0.950			0.950				0.661		0.950	0.969	
Satd. Flow (perm)	3433	3536	0	1770	3408	0	0	1166	0	1681	1715	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			50			23				126
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	287	442	3	16	1023	339	1	40	26	27	6	111
Future Volume (vph)	287	442	3	16	1023	339	1	40	26	27	6	111
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	326	502	3	18	1163	385	1	45	30	31	7	126
Shared Lane Traffic (%)										39%		
Lane Group Flow (vph)	326	505	0	18	1548	0	0	76	0	19	19	126
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

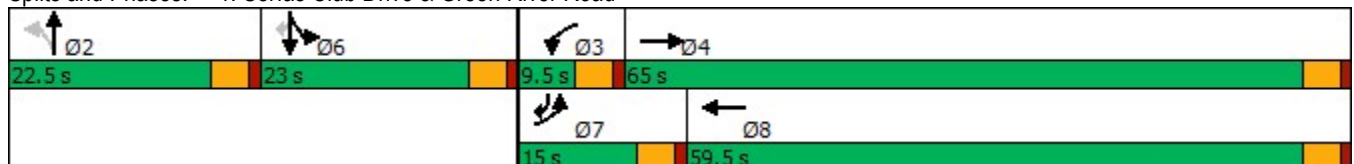


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	287	442	16	1023	1	40	27	6	111
Future Volume (vph)	287	442	16	1023	1	40	27	6	111
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	15.0	65.0	9.5	59.5	22.5	22.5	23.0	23.0	15.0
Total Split (%)	12.5%	54.2%	7.9%	49.6%	18.8%	18.8%	19.2%	19.2%	12.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	10.6	65.0	5.0	53.4		18.1	6.8	6.8	17.4
Actuated g/C Ratio	0.10	0.63	0.05	0.52		0.18	0.07	0.07	0.17
v/c Ratio	0.92	0.23	0.21	0.86		0.34	0.17	0.17	0.34
Control Delay	79.4	9.7	55.9	27.6		34.1	51.3	51.2	9.2
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	79.4	9.7	55.9	27.6		34.1	51.3	51.2	9.2
LOS	E	A	E	C		C	D	D	A
Approach Delay		37.1		27.9		34.1		18.9	
Approach LOS		D		C		C		B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 102.5
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 30.4
 Intersection Capacity Utilization 66.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	442	3	16	1023	339	1	40	26	27	6	111
Future Volume (veh/h)	287	442	3	16	1023	339	1	40	26	27	6	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	502	3	18	1162	385	1	45	30	36	0	126
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	2036	12	34	1280	416	4	170	113	323	0	295
Arrive On Green	0.10	0.56	0.56	0.02	0.49	0.49	0.16	0.16	0.16	0.09	0.00	0.09
Sat Flow, veh/h	3456	3622	22	1781	2636	857	23	1033	689	3563	0	1585
Grp Volume(v), veh/h	326	246	259	18	776	771	76	0	0	36	0	126
Grp Sat Flow(s),veh/h/ln	1728	1777	1866	1781	1777	1716	1745	0	0	1781	0	1585
Q Serve(g_s), s	10.3	7.7	7.7	1.1	43.7	46.1	4.2	0.0	0.0	1.0	0.0	7.7
Cycle Q Clear(g_c), s	10.3	7.7	7.7	1.1	43.7	46.1	4.2	0.0	0.0	1.0	0.0	7.7
Prop In Lane	1.00		0.01	1.00		0.50	0.01		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	331	999	1049	34	863	833	286	0	0	323	0	295
V/C Ratio(X)	0.99	0.25	0.25	0.53	0.90	0.93	0.27	0.00	0.00	0.11	0.00	0.43
Avail Cap(c_a), veh/h	331	999	1049	81	891	860	286	0	0	601	0	419
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.5	12.2	12.2	53.3	25.8	26.4	40.1	0.0	0.0	45.8	0.0	39.5
Incr Delay (d2), s/veh	45.5	0.1	0.1	11.9	11.8	15.4	2.3	0.0	0.0	0.2	0.0	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	6.5	3.0	3.2	0.6	20.4	21.5	2.0	0.0	0.0	0.5	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.0	12.3	12.3	65.2	37.5	41.8	42.3	0.0	0.0	46.0	0.0	40.4
LnGrp LOS	F	B	B	E	D	D	D	A	A	D	A	D
Approach Vol, veh/h		831			1565			76				162
Approach Delay, s/veh		44.8			39.9			42.3				41.7
Approach LOS		D			D			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.6	66.2		14.4	15.0	57.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	60.5		18.5	10.5	55.0				
Max Q Clear Time (g_c+I1), s		6.2	3.1	9.7		9.7	12.3	48.1				
Green Ext Time (p_c), s		0.2	0.0	3.4		0.3	0.0	5.2				

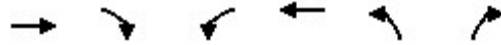
Intersection Summary

HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3507	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3507	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	12					47
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

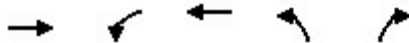
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	442	27	19	1239	94	41
Future Volume (vph)	442	27	19	1239	94	41
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	502	31	22	1408	107	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	533	0	22	1408	107	47
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road

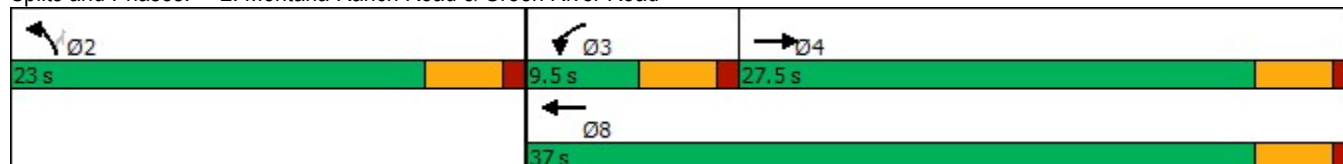


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↖	↑↑	↖	↗
Traffic Volume (vph)	442	19	1239	94	41
Future Volume (vph)	442	19	1239	94	41
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	27.5	9.5	37.0	23.0	23.0
Total Split (%)	45.8%	15.8%	61.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effect Green (s)	28.1	5.0	30.0	18.6	18.6
Actuated g/C Ratio	0.49	0.09	0.52	0.32	0.32
v/c Ratio	0.31	0.14	0.77	0.19	0.09
Control Delay	9.9	27.9	14.3	16.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	27.9	14.3	16.3	5.9
LOS	A	C	B	B	A
Approach Delay	9.9		14.5	13.1	
Approach LOS	A		B	B	

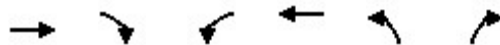
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 57.6
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 13.2
 Intersection LOS: B
 Intersection Capacity Utilization 47.0%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	442	27	19	1239	94	41
Future Volume (veh/h)	442	27	19	1239	94	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	502	31	22	1408	107	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1350	83	46	1791	594	529
Arrive On Green	0.40	0.40	0.03	0.50	0.33	0.33
Sat Flow, veh/h	3494	210	1781	3647	1781	1585
Grp Volume(v), veh/h	262	271	22	1408	107	47
Grp Sat Flow(s),veh/h/ln	1777	1833	1781	1777	1781	1585
Q Serve(g_s), s	5.8	5.8	0.7	18.0	2.4	1.1
Cycle Q Clear(g_c), s	5.8	5.8	0.7	18.0	2.4	1.1
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	705	728	46	1791	594	529
V/C Ratio(X)	0.37	0.37	0.48	0.79	0.18	0.09
Avail Cap(c_a), veh/h	737	760	161	2083	594	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	11.8	26.6	11.3	13.1	12.7
Incr Delay (d2), s/veh	0.3	0.3	7.4	1.8	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.1	0.4	6.0	1.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.1	12.1	34.1	13.1	13.8	13.0
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	533			1430	154	
Approach Delay, s/veh	12.1			13.4	13.5	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.0	5.9	26.5		32.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.5	5.0	23.0		32.5
Max Q Clear Time (g_c+l1), s		4.4	2.7	7.8		20.0
Green Ext Time (p_c), s		0.3	0.0	2.8		7.9
Intersection Summary						
HCM 6th Ctrl Delay			13.1			
HCM 6th LOS			B			

Lanes and Geometrics

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



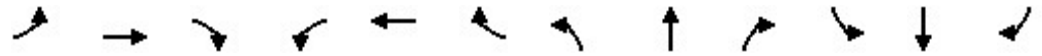
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.997			0.981				0.948
Flt Protected	0.950			0.950				0.959				0.970
Satd. Flow (prot)	1770	3525	0	1770	3529	0	0	1752	0	0	1713	0
Flt Permitted	0.950			0.950				0.854				0.860
Satd. Flow (perm)	1770	3525	0	1770	3529	0	0	1561	0	0	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			4			87				87
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

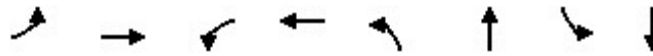
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	16	468	12	7	1238	29	11	0	2	30	0	19
Future Volume (vph)	16	468	12	7	1238	29	11	0	2	30	0	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	526	13	8	1391	33	12	0	2	34	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	539	0	8	1424	0	0	14	0	0	55	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road

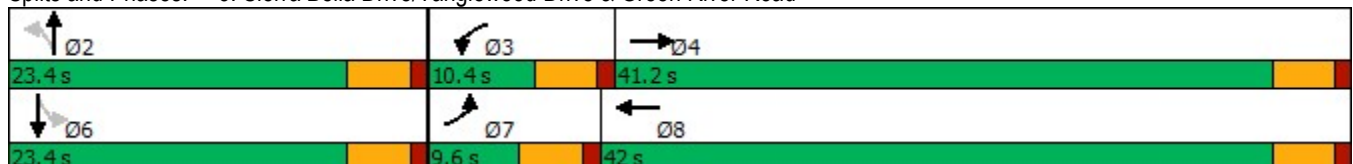


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕		↕		↕
Traffic Volume (vph)	16	468	7	1238	11	0	30	0
Future Volume (vph)	16	468	7	1238	11	0	30	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	41.2	10.4	42.0	23.4	23.4	23.4	23.4
Total Split (%)	12.8%	54.9%	13.9%	56.0%	31.2%	31.2%	31.2%	31.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	33.4	5.8	33.5		19.2		19.2
Actuated g/C Ratio	0.08	0.53	0.09	0.53		0.30		0.30
v/c Ratio	0.12	0.29	0.05	0.76		0.03		0.11
Control Delay	32.7	9.1	30.7	15.4		0.1		3.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	32.7	9.1	30.7	15.4		0.1		3.0
LOS	C	A	C	B		A		A
Approach Delay		9.9		15.5		0.1		3.0
Approach LOS		A		B		A		A

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 63.4
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 13.5
 Intersection LOS: B
 Intersection Capacity Utilization 46.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road



HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	468	12	7	1238	29	11	0	2	30	0	19
Future Volume (veh/h)	16	468	12	7	1238	29	11	0	2	30	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	526	13	8	1391	33	12	0	2	34	0	21
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	1762	44	18	1725	41	450	8	59	334	20	164
Arrive On Green	0.02	0.50	0.50	0.01	0.49	0.49	0.29	0.00	0.29	0.29	0.00	0.29
Sat Flow, veh/h	1781	3544	88	1781	3548	84	1213	28	207	852	71	570
Grp Volume(v), veh/h	18	264	275	8	696	728	14	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1855	1448	0	0	1493	0	0
Q Serve(g_s), s	0.7	5.8	5.8	0.3	21.8	21.8	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.7	5.8	5.8	0.3	21.8	21.8	0.4	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.05	0.86		0.14	0.62		0.38
Lane Grp Cap(c), veh/h	38	883	922	18	864	902	518	0	0	518	0	0
V/C Ratio(X)	0.47	0.30	0.30	0.43	0.81	0.81	0.03	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	138	991	1035	160	1013	1058	518	0	0	518	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(l)	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	31.8	9.8	9.8	32.4	14.3	14.3	16.8	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	8.9	0.2	0.2	15.3	4.2	4.1	0.1	0.0	0.0	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	0.4	2.0	2.1	0.2	8.5	8.8	0.2	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	10.0	9.9	47.7	18.5	18.4	16.9	0.0	0.0	17.7	0.0	0.0
LnGrp LOS	D	A	A	D	B	B	B	A	A	B	A	A
Approach Vol, veh/h		557			1432			14				55
Approach Delay, s/veh		10.9			18.6			16.9				17.7
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	5.2	37.2		23.4	5.9	36.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.9	5.9	36.7		18.9	5.1	37.5				
Max Q Clear Time (g_c+I1), s		2.4	2.3	7.8		3.6	2.7	23.8				
Green Ext Time (p_c), s		0.0	0.0	3.5		0.2	0.0	8.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

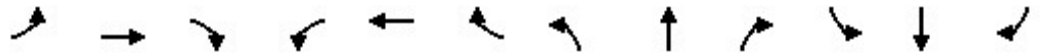
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.851	0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						115					179	179
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	257	233	0	0	929	36	0	0	0	28	1	315
Future Volume (vph)	257	233	0	0	929	36	0	0	0	28	1	315
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	292	265	0	0	1056	41	0	0	0	32	1	358
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	292	265	0	0	1056	41	0	0	0	32	180	179
Intersection Summary												

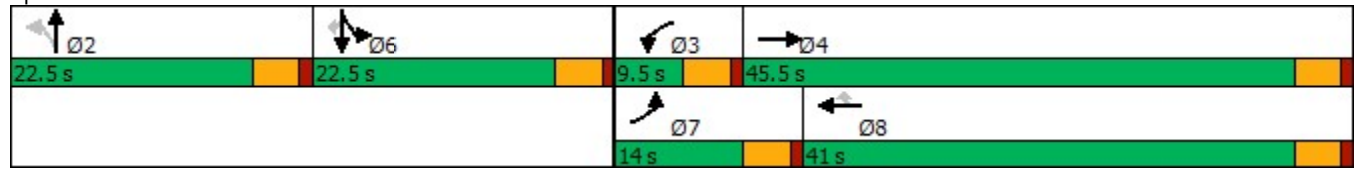
Timings
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR	Ø2	Ø3
Lane Configurations	↖↗	↕↗	↖↖	↖↗	↖↗	↘↗	↘↗		
Traffic Volume (vph)	257	233	929	36	28	1	315		
Future Volume (vph)	257	233	929	36	28	1	315		
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm		
Protected Phases	7	4	8		6	6		2	3
Permitted Phases				8			6		
Detector Phase	7	4	8	8	6	6	6		
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	45.5	41.0	41.0	22.5	22.5	22.5	22.5	9.5
Total Split (%)	14.0%	45.5%	41.0%	41.0%	22.5%	22.5%	22.5%	23%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	None
Act Effct Green (s)	9.5	48.3	34.2	34.2	18.0	18.0	18.0		
Actuated g/C Ratio	0.10	0.49	0.35	0.35	0.18	0.18	0.18		
v/c Ratio	0.87	0.15	0.85	0.07	0.10	0.43	0.42		
Control Delay	71.1	13.7	37.2	0.2	35.2	9.1	9.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	71.1	13.7	37.2	0.2	35.2	9.1	9.0		
LOS	E	B	D	A	D	A	A		
Approach Delay		43.8	35.8			11.2			
Approach LOS		D	D			B			

Intersection Summary
 Cycle Length: 100
 Actuated Cycle Length: 97.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 33.3
 Intersection Capacity Utilization 50.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	233	0	0	929	36	0	0	0	28	1	315
Future Volume (veh/h)	257	233	0	0	929	36	0	0	0	28	1	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	265	0	0	1056	41	0	0	0	32	0	359
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	1734	0	2	1219	544	0	348	0	332	0	590
Arrive On Green	0.10	0.49	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	3456	3647	0	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	292	265	0	0	1056	41	0	0	0	32	0	359
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	8.0	4.0	0.0	0.0	26.8	1.7	0.0	0.0	0.0	1.4	0.0	10.0
Cycle Q Clear(g_c), s	8.0	4.0	0.0	0.0	26.8	1.7	0.0	0.0	0.0	1.4	0.0	10.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	340	1734	0	2	1219	544	0	348	0	332	0	590
V/C Ratio(X)	0.86	0.15	0.00	0.00	0.87	0.08	0.00	0.00	0.00	0.10	0.00	0.61
Avail Cap(c_a), veh/h	340	1734	0	92	1342	599	0	348	0	332	0	590
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(l)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.9	13.7	0.0	0.0	29.7	21.4	0.0	0.0	0.0	32.6	0.0	36.1
Incr Delay (d2), s/veh	19.4	0.0	0.0	0.0	5.8	0.1	0.0	0.0	0.0	0.6	0.0	4.6
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	4.3	1.6	0.0	0.0	12.1	0.6	0.0	0.0	0.0	0.7	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	13.7	0.0	0.0	35.5	21.5	0.0	0.0	0.0	33.2	0.0	40.7
LnGrp LOS	E	B	A	A	D	C	A	A	A	C	A	D
Approach Vol, veh/h		557			1097			0				391
Approach Delay, s/veh		39.2			35.0			0.0				40.1
Approach LOS		D			C							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	0.0	51.7		22.5	14.0	37.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	41.0		18.0	9.5	36.5				
Max Q Clear Time (g_c+l1), s		0.0	0.0	6.0		12.0	10.0	28.8				
Green Ext Time (p_c), s		0.0	0.0	1.8		0.8	0.0	4.3				

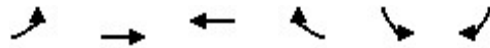
Intersection Summary

HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue

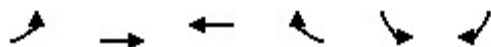


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.996			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3525	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3525	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			5			49
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

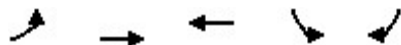
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	18	234	897	22	27	46
Future Volume (vph)	18	234	897	22	27	46
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	19	249	954	23	29	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	249	977	0	29	49
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

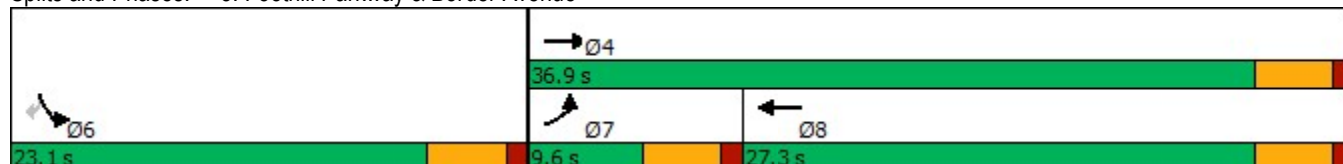


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	18	234	897	27	46
Future Volume (vph)	18	234	897	27	46
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	36.9	27.3	23.1	23.1
Total Split (%)	16.0%	61.5%	45.5%	38.5%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	5.2	21.3	19.7	18.9	18.9
Actuated g/C Ratio	0.11	0.43	0.40	0.38	0.38
v/c Ratio	0.10	0.16	0.69	0.04	0.08
Control Delay	24.4	8.3	15.6	12.5	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	8.3	15.6	12.5	5.4
LOS	C	A	B	B	A
Approach Delay		9.4	15.6	8.0	
Approach LOS		A	B	A	

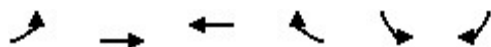
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 49.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 13.9
 Intersection LOS: B
 Intersection Capacity Utilization 37.2%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue

























HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑↑	↑↗		↙	↘	
Traffic Volume (veh/h)	18	234	897	22	27	46	
Future Volume (veh/h)	18	234	897	22	27	46	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	19	249	954	23	29	49	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	41	1651	1256	30	643	572	
Arrive On Green	0.02	0.46	0.35	0.35	0.36	0.36	
Sat Flow, veh/h	1781	3647	3640	85	1781	1585	
Grp Volume(v), veh/h	19	249	478	499	29	49	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1855	1781	1585	
Q Serve(g_s), s	0.5	2.1	12.3	12.3	0.5	1.1	
Cycle Q Clear(g_c), s	0.5	2.1	12.3	12.3	0.5	1.1	
Prop In Lane	1.00			0.05	1.00	1.00	
Lane Grp Cap(c), veh/h	41	1651	629	657	643	572	
V/C Ratio(X)	0.46	0.15	0.76	0.76	0.05	0.09	
Avail Cap(c_a), veh/h	176	2234	786	821	643	572	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	24.9	7.9	14.7	14.7	10.7	10.9	
Incr Delay (d2), s/veh	7.8	0.0	3.4	3.2	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.7	4.7	4.9	0.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.7	8.0	18.1	18.0	10.8	11.2	
LnGrp LOS	C	A	B	B	B	B	
Approach Vol, veh/h		268	977		78		
Approach Delay, s/veh		9.7	18.0		11.0		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				28.4	23.1	5.7	22.7
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.4	18.6	5.1	22.8
Max Q Clear Time (g_c+I1), s				4.1	3.1	2.5	14.3
Green Ext Time (p_c), s				1.6	0.1	0.0	4.0
Intersection Summary							
HCM 6th Ctrl Delay			15.9				
HCM 6th LOS			B				

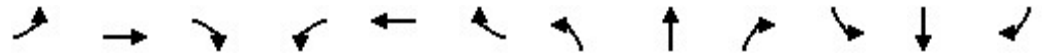
Lanes and Geometrics
6: Chase Drive & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999							0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1863	0	1770	1583	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1863	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												659
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

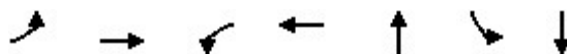
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	11	244	1	4	829	5	0	1	0	10	0	89
Future Volume (vph)	11	244	1	4	829	5	0	1	0	10	0	89
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	265	1	4	901	5	0	1	0	11	0	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	266	0	4	906	0	0	1	0	11	97	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

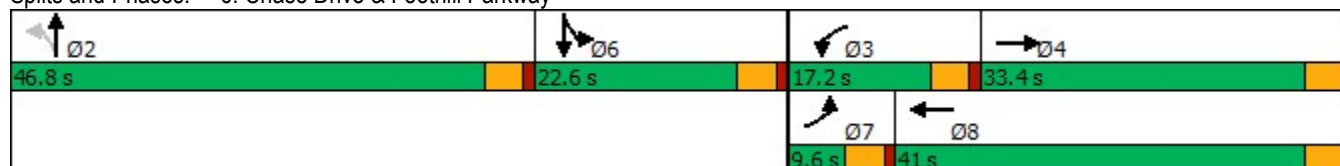


Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations	↶	↷	↶	↷	↷	↶	↷
Traffic Volume (vph)	11	244	4	829	1	10	0
Future Volume (vph)	11	244	4	829	1	10	0
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	33.4	17.2	41.0	46.8	22.6	22.6
Total Split (%)	8.0%	27.8%	14.3%	34.2%	39.0%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	5.3	20.6	5.9	20.8	5.7	6.1	6.1
Actuated g/C Ratio	0.11	0.43	0.12	0.43	0.12	0.13	0.13
v/c Ratio	0.06	0.17	0.02	0.59	0.00	0.05	0.12
Control Delay	24.8	9.1	23.8	12.4	24.0	23.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	9.1	23.8	12.4	24.0	23.4	0.3
LOS	C	A	C	B	C	C	A
Approach Delay		9.8		12.4	24.0		2.7
Approach LOS		A		B	C		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 48
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 11.0
 Intersection LOS: B
 Intersection Capacity Utilization 37.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	244	1	4	829	5	0	1	0	10	0	89
Future Volume (veh/h)	11	244	1	4	829	5	0	1	0	10	0	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	265	1	4	901	5	0	1	0	11	0	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	1426	5	10	1387	8	0	200	0	195	0	173
Arrive On Green	0.02	0.39	0.39	0.01	0.38	0.38	0.00	0.11	0.00	0.11	0.00	0.11
Sat Flow, veh/h	1781	3631	14	1781	3623	20	0	1870	0	1781	0	1585
Grp Volume(v), veh/h	12	130	136	4	442	464	0	1	0	11	0	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1867	0	1870	0	1781	0	1585
Q Serve(g_s), s	0.3	2.2	2.2	0.1	9.5	9.5	0.0	0.0	0.0	0.3	0.0	2.7
Cycle Q Clear(g_c), s	0.3	2.2	2.2	0.1	9.5	9.5	0.0	0.0	0.0	0.3	0.0	2.7
Prop In Lane	1.00		0.01	1.00		0.01	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	27	698	734	10	680	714	0	200	0	195	0	173
V/C Ratio(X)	0.44	0.19	0.19	0.41	0.65	0.65	0.00	0.00	0.00	0.06	0.00	0.56
Avail Cap(c_a), veh/h	195	1100	1156	484	1389	1459	0	1694	0	690	0	614
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	9.3	9.3	23.1	11.8	11.8	0.0	18.6	0.0	18.6	0.0	19.7
Incr Delay (d2), s/veh	10.5	0.1	0.1	26.0	1.1	1.0	0.0	0.0	0.0	0.1	0.0	2.8
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	0.2	0.7	0.8	0.1	3.2	3.4	0.0	0.0	0.0	0.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	9.4	9.4	49.2	12.9	12.8	0.0	18.6	0.0	18.8	0.0	22.5
LnGrp LOS	C	A	A	D	B	B	A	B	A	B	A	C
Approach Vol, veh/h		278			910			1				108
Approach Delay, s/veh		10.4			13.0			18.6				22.2
Approach LOS		B			B			B				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	4.8	22.8		9.6	5.2	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.3	12.7	28.9		18.1	5.1	36.5				
Max Q Clear Time (g_c+I1), s		2.0	2.1	4.2		4.7	2.3	11.5				
Green Ext Time (p_c), s		0.0	0.0	1.5		0.4	0.0	6.3				
Intersection Summary												
HCM 6th Ctrl Delay				13.2								
HCM 6th LOS				B								

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

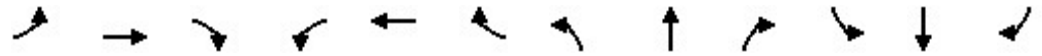


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.962			0.984			0.979			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3405	0	1770	3483	0	1770	3465	0	1770	3320	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	3483	0	1770	3465	0	1770	3320	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			13			22			117	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	98	300	103	26	556	67	228	249	40	69	149	104
Future Volume (vph)	98	300	103	26	556	67	228	249	40	69	149	104
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	110	337	116	29	625	75	256	280	45	78	167	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	453	0	29	700	0	256	325	0	78	284	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

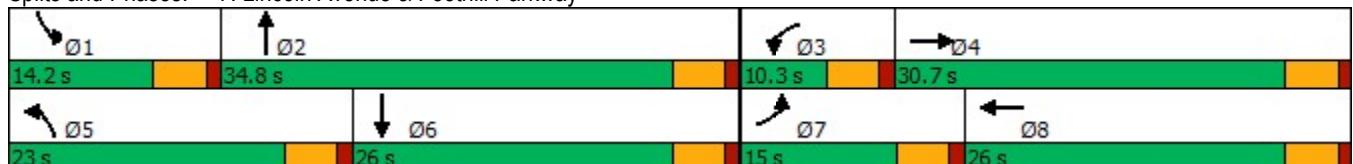


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	98	300	26	556	228	249	69	149
Future Volume (vph)	98	300	26	556	228	249	69	149
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	15.0	30.7	10.3	26.0	23.0	34.8	14.2	26.0
Total Split (%)	16.7%	34.1%	11.4%	28.9%	25.6%	38.7%	15.8%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	9.3	27.2	5.9	20.1	16.0	32.7	8.4	22.3
Actuated g/C Ratio	0.11	0.33	0.07	0.24	0.19	0.39	0.10	0.27
v/c Ratio	0.56	0.39	0.23	0.82	0.76	0.24	0.44	0.29
Control Delay	48.9	20.8	44.8	39.8	48.3	19.3	45.9	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	20.8	44.8	39.8	48.3	19.3	45.9	16.8
LOS	D	C	D	D	D	B	D	B
Approach Delay		26.3		40.0		32.1		23.0
Approach LOS		C		D		C		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 83.2
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 31.7
 Intersection LOS: C
 Intersection Capacity Utilization 58.0%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway


































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	98	300	103	26	556	67	228	249	40	69	149	104
Future Volume (veh/h)	98	300	103	26	556	67	228	249	40	69	149	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	337	116	29	625	75	256	280	45	78	167	117
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	747	253	53	759	91	302	1208	192	101	574	380
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.17	0.39	0.39	0.06	0.28	0.28
Sat Flow, veh/h	1781	2606	882	1781	3195	383	1781	3072	488	1781	2049	1354
Grp Volume(v), veh/h	110	228	225	29	347	353	256	161	164	78	143	141
Grp Sat Flow(s),veh/h/ln	1781	1777	1712	1781	1777	1801	1781	1777	1783	1781	1777	1627
Q Serve(g_s), s	4.7	8.1	8.3	1.2	14.3	14.3	10.7	4.6	4.8	3.3	4.9	5.2
Cycle Q Clear(g_c), s	4.7	8.1	8.3	1.2	14.3	14.3	10.7	4.6	4.8	3.3	4.9	5.2
Prop In Lane	1.00		0.52	1.00		0.21	1.00		0.27	1.00		0.83
Lane Grp Cap(c), veh/h	141	509	491	53	422	428	302	699	701	101	498	456
V/C Ratio(X)	0.78	0.45	0.46	0.54	0.82	0.83	0.85	0.23	0.23	0.77	0.29	0.31
Avail Cap(c_a), veh/h	243	604	582	134	496	503	428	699	701	224	498	456
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(l)	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	22.5	22.6	36.9	27.9	27.9	31.0	15.6	15.6	35.9	21.7	21.8
Incr Delay (d2), s/veh	8.9	0.6	0.7	8.3	9.4	9.5	10.7	0.8	0.8	11.7	1.5	1.7
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	2.3	3.3	3.3	0.7	6.9	7.0	5.4	1.9	2.0	1.7	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	23.1	23.2	45.2	37.3	37.3	41.7	16.4	16.4	47.6	23.2	23.6
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		563			729			581			362	
Approach Delay, s/veh		27.2			37.6			27.6			28.6	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	34.8	6.8	26.6	17.6	26.1	10.6	22.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	30.3	5.8	26.2	18.5	21.5	10.5	21.5				
Max Q Clear Time (g_c+I1), s	5.3	6.8	3.2	10.3	12.7	7.2	6.7	16.3				
Green Ext Time (p_c), s	0.1	1.9	0.0	2.5	0.4	1.4	0.1	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				30.9								
HCM 6th LOS				C								

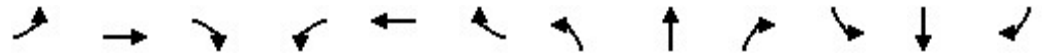
Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	  	 	 	 	 	 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			189			94			281			94
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	78	337	157	156	284	149	184	715	247	228	433	36
Future Volume (vph)	78	337	157	156	284	149	184	715	247	228	433	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	94	406	189	188	342	180	222	861	298	275	522	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	406	189	188	342	180	222	861	298	275	522	43
Intersection Summary												

Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	337	157	156	284	149	184	715	247	228	433	36
Future Volume (vph)	78	337	157	156	284	149	184	715	247	228	433	36
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	10.0	22.5	22.5	10.0	22.5	12.0	13.5	25.5	25.5	12.0	24.0	10.0
Total Split (%)	14.3%	32.1%	32.1%	14.3%	32.1%	17.1%	19.3%	36.4%	36.4%	17.1%	34.3%	14.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.5	13.4	13.4	5.5	15.6	27.6	8.4	21.0	21.0	7.5	20.1	30.1
Actuated g/C Ratio	0.08	0.20	0.20	0.08	0.24	0.42	0.13	0.32	0.32	0.11	0.31	0.46
v/c Ratio	0.33	0.56	0.40	0.65	0.41	0.25	0.50	0.76	0.43	0.70	0.48	0.06
Control Delay	32.7	26.4	6.5	42.4	23.4	7.7	31.5	26.1	5.4	40.0	21.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	26.4	6.5	42.4	23.4	7.7	31.5	26.1	5.4	40.0	21.1	0.6
LOS	C	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		21.8			24.5			22.5			26.2	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 65.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.6

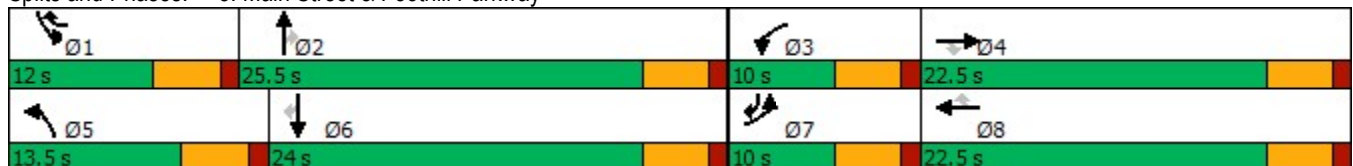
Intersection LOS: C

Intersection Capacity Utilization 55.0%

































ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Main Street & Foothill Parkway



HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	78	337	157	156	284	149	184	715	247	228	433	36
Future Volume (veh/h)	78	337	157	156	284	149	184	715	247	228	433	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	406	189	188	342	180	222	861	298	275	522	43
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	639	285	283	701	486	331	1203	537	378	1252	661
Arrive On Green	0.06	0.18	0.18	0.08	0.20	0.20	0.10	0.34	0.34	0.11	0.35	0.35
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	94	406	189	188	342	180	222	861	298	275	522	43
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.6	6.6	6.9	3.3	5.3	5.5	3.9	13.1	9.5	4.8	6.9	1.0
Cycle Q Clear(g_c), s	1.6	6.6	6.9	3.3	5.3	5.5	3.9	13.1	9.5	4.8	6.9	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	639	285	283	701	486	331	1203	537	378	1252	661
V/C Ratio(X)	0.42	0.64	0.66	0.66	0.49	0.37	0.67	0.72	0.56	0.73	0.42	0.07
Avail Cap(c_a), veh/h	306	1031	460	306	1031	633	501	1203	537	418	1252	661
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	27.9	23.6	23.7	27.6	22.1	16.8	27.1	17.9	16.7	26.7	15.3	10.8
Incr Delay (d2), s/veh	1.3	1.1	2.6	4.8	0.5	0.5	2.4	3.7	4.1	5.6	1.0	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	0.7	2.7	2.6	1.5	2.1	1.9	1.6	5.5	3.7	2.2	2.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	24.6	26.3	32.4	22.6	17.3	29.5	21.6	20.8	32.3	16.3	11.0
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	B	B
Approach Vol, veh/h		689			710			1381			840	
Approach Delay, s/veh		25.7			23.9			22.7			21.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	25.5	9.6	15.7	10.4	26.4	8.5	16.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	21.0	5.5	18.0	9.0	19.5	5.5	18.0				
Max Q Clear Time (g_c+I1), s	6.8	15.1	5.3	8.9	5.9	8.9	3.6	7.5				
Green Ext Time (p_c), s	0.1	3.3	0.0	2.3	0.2	2.7	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				23.2								
HCM 6th LOS				C								

Lanes and Geometrics
9: Fullerton Avenue & Foothill Parkway

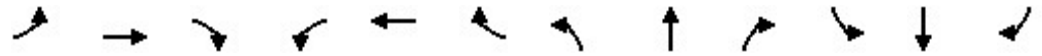


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.973				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			182			31			245
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	176	611	85	58	635	84	263	306	68	52	127	213
Future Volume (vph)	176	611	85	58	635	84	263	306	68	52	127	213
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	235	815	113	77	847	112	351	408	91	69	169	284
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	815	113	77	847	112	351	499	0	69	169	284
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway

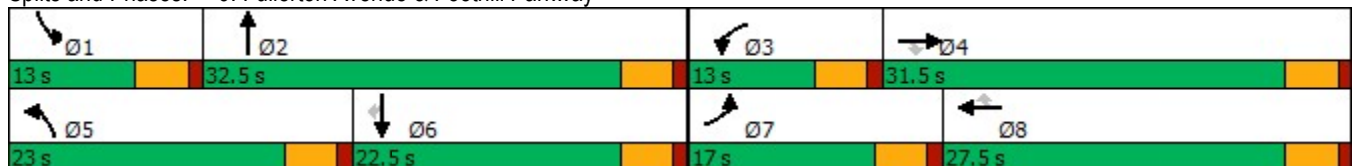


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↗	↘
Traffic Volume (vph)	176	611	85	58	635	84	263	306	52	127	213
Future Volume (vph)	176	611	85	58	635	84	263	306	52	127	213
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	17.0	31.5	31.5	13.0	27.5	27.5	23.0	32.5	13.0	22.5	22.5
Total Split (%)	18.9%	35.0%	35.0%	14.4%	30.6%	30.6%	25.6%	36.1%	14.4%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	12.5	29.7	29.7	7.8	23.0	23.0	18.5	30.8	7.7	18.0	18.0
Actuated g/C Ratio	0.14	0.33	0.33	0.09	0.26	0.26	0.21	0.34	0.09	0.20	0.20
v/c Ratio	0.96	0.70	0.18	0.50	0.94	0.21	0.97	0.42	0.46	0.45	0.55
Control Delay	88.8	31.0	1.3	50.7	52.0	1.6	77.2	23.4	48.8	36.3	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.8	31.0	1.3	50.7	52.0	1.6	77.2	23.4	48.8	36.3	11.3
LOS	F	C	A	D	D	A	E	C	D	D	B
Approach Delay		39.8			46.4			45.6		24.3	
Approach LOS		D			D			D		C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 40.8
 Intersection LOS: D
 Intersection Capacity Utilization 63.6%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	611	85	58	635	84	263	306	68	52	127	213
Future Volume (veh/h)	176	611	85	58	635	84	263	306	68	52	127	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	235	815	113	77	847	112	351	408	91	69	169	284
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1203	537	99	908	405	366	1029	227	89	374	317
Arrive On Green	0.14	0.34	0.34	0.06	0.26	0.26	0.21	0.36	0.36	0.05	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2893	639	1781	1870	1585
Grp Volume(v), veh/h	235	815	113	77	847	112	351	249	250	69	169	284
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1755	1781	1870	1585
Q Serve(g_s), s	11.8	17.7	4.6	3.8	21.0	5.1	17.5	9.5	9.6	3.4	7.2	15.7
Cycle Q Clear(g_c), s	11.8	17.7	4.6	3.8	21.0	5.1	17.5	9.5	9.6	3.4	7.2	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	247	1203	537	99	908	405	366	632	624	89	374	317
V/C Ratio(X)	0.95	0.68	0.21	0.78	0.93	0.28	0.96	0.39	0.40	0.77	0.45	0.90
Avail Cap(c_a), veh/h	247	1203	537	168	908	405	366	632	624	168	374	317
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	25.5	21.2	41.9	32.7	26.8	35.4	21.7	21.8	42.2	31.7	35.1
Incr Delay (d2), s/veh	43.4	1.5	0.2	12.1	16.1	0.4	36.1	1.8	1.9	13.3	3.9	29.8
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	8.0	7.5	1.7	2.0	10.8	1.9	11.1	4.2	4.2	1.8	3.6	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.8	27.1	21.4	54.0	48.8	27.2	71.5	23.6	23.7	55.5	35.6	64.9
LnGrp LOS	F	C	C	D	D	C	E	C	C	E	D	E
Approach Vol, veh/h		1163			1036			850			522	
Approach Delay, s/veh		37.6			46.9			43.4			54.2	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	36.5	9.5	35.0	23.0	22.5	17.0	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	28.0	8.5	27.0	18.5	18.0	12.5	23.0				
Max Q Clear Time (g_c+I1), s	5.4	11.6	5.8	19.7	19.5	17.7	13.8	23.0				
Green Ext Time (p_c), s	0.0	2.8	0.0	3.4	0.0	0.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.1									
HCM 6th LOS			D									

Lanes and Geometrics
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.971			0.958				0.850
Flt Protected	0.950			0.950				0.995		0.950	0.961	
Satd. Flow (prot)	3433	3536	0	1770	3437	0	0	1776	0	1681	1701	1583
Flt Permitted	0.950			0.950				0.582		0.950	0.961	
Satd. Flow (perm)	3433	3536	0	1770	3437	0	0	1039	0	1681	1701	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			9				313
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	183	1295	7	16	394	96	3	16	9	464	46	300
Future Volume (vph)	183	1295	7	16	394	96	3	16	9	464	46	300
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	191	1349	7	17	410	100	3	17	9	483	48	313
Shared Lane Traffic (%)										45%		
Lane Group Flow (vph)	191	1356	0	17	510	0	0	29	0	266	265	313
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

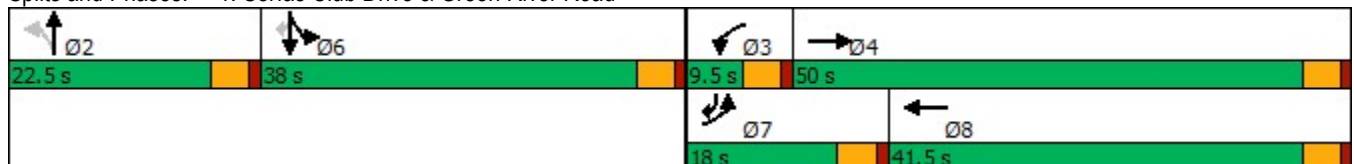


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	183	1295	16	394	3	16	464	46	300
Future Volume (vph)	183	1295	16	394	3	16	464	46	300
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	18.0	50.0	9.5	41.5	22.5	22.5	38.0	38.0	18.0
Total Split (%)	15.0%	41.7%	7.9%	34.6%	18.8%	18.8%	31.7%	31.7%	15.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	10.8	46.1	5.1	34.1		18.2	22.0	22.0	37.3
Actuated g/C Ratio	0.10	0.45	0.05	0.33		0.18	0.21	0.21	0.36
v/c Ratio	0.53	0.86	0.20	0.44		0.15	0.75	0.73	0.41
Control Delay	51.2	34.5	57.8	28.4		33.8	51.4	50.5	4.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	51.2	34.5	57.8	28.4		33.8	51.4	50.5	4.1
LOS	D	C	E	C		C	D	D	A
Approach Delay		36.6		29.3		33.8		33.6	
Approach LOS		D		C		C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 103.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 34.4
 Intersection LOS: C
 Intersection Capacity Utilization 72.2%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↔		↔	↑↔			↔		↔	↑↔	↔
Traffic Volume (veh/h)	183	1295	7	16	394	96	3	16	9	464	46	300
Future Volume (veh/h)	183	1295	7	16	394	96	3	16	9	464	46	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	1349	7	17	410	100	3	17	9	517	0	312
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1503	8	33	1014	245	32	180	95	778	0	467
Arrive On Green	0.08	0.41	0.41	0.02	0.36	0.36	0.17	0.17	0.17	0.22	0.00	0.22
Sat Flow, veh/h	3456	3625	19	1781	2838	686	182	1033	547	3563	0	1585
Grp Volume(v), veh/h	191	661	695	17	255	255	29	0	0	517	0	312
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1747	1763	0	0	1781	0	1585
Q Serve(g_s), s	5.6	35.9	35.9	1.0	11.1	11.3	1.4	0.0	0.0	13.7	0.0	17.9
Cycle Q Clear(g_c), s	5.6	35.9	35.9	1.0	11.1	11.3	1.4	0.0	0.0	13.7	0.0	17.9
Prop In Lane	1.00		0.01	1.00		0.39	0.10		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	262	737	774	33	635	624	307	0	0	778	0	467
V/C Ratio(X)	0.73	0.90	0.90	0.51	0.40	0.41	0.09	0.00	0.00	0.66	0.00	0.67
Avail Cap(c_a), veh/h	451	782	821	86	636	625	307	0	0	1154	0	634
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.7	28.2	28.2	50.3	24.9	25.0	35.9	0.0	0.0	36.9	0.0	32.0
Incr Delay (d2), s/veh	3.8	12.7	12.2	11.6	0.4	0.4	0.6	0.0	0.0	1.0	0.0	1.7
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	2.5	17.3	18.0	0.5	4.7	4.7	0.7	0.0	0.0	6.0	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	40.9	40.4	61.9	25.3	25.4	36.5	0.0	0.0	37.9	0.0	33.7
LnGrp LOS	D	D	D	E	C	C	D	A	A	D	A	C
Approach Vol, veh/h		1547			527			29				829
Approach Delay, s/veh		41.9			26.6			36.5				36.3
Approach LOS		D			C			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.4	47.4		27.1	12.3	41.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	45.5		33.5	13.5	37.0				
Max Q Clear Time (g_c+I1), s		3.4	3.0	37.9		19.9	7.6	13.3				
Green Ext Time (p_c), s		0.1	0.0	5.0		2.7	0.3	3.2				

Intersection Summary

HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road

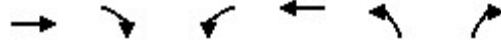


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙	↙
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3518	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3518	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	9					27
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

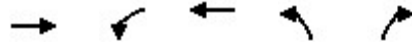
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	1644	74	16	424	34	25
Future Volume (vph)	1644	74	16	424	34	25
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1749	79	17	451	36	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1828	0	17	451	36	27
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	1644	16	424	34	25
Future Volume (vph)	1644	16	424	34	25
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	57.0	9.6	66.6	23.4	23.4
Total Split (%)	63.3%	10.7%	74.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	50.0	5.1	53.5	19.1	19.1
Actuated g/C Ratio	0.61	0.06	0.65	0.23	0.23
v/c Ratio	0.85	0.15	0.19	0.09	0.07
Control Delay	18.4	42.9	5.6	28.2	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	42.9	5.6	28.2	11.7
LOS	B	D	A	C	B
Approach Delay	18.4		6.9	21.2	
Approach LOS	B		A	C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 81.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 16.2
 Intersection LOS: B
 Intersection Capacity Utilization 59.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	1644	74	16	424	34	25
Future Volume (veh/h)	1644	74	16	424	34	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1749	79	17	451	36	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2037	91	35	2353	408	363
Arrive On Green	0.59	0.59	0.02	0.66	0.23	0.23
Sat Flow, veh/h	3557	156	1781	3647	1781	1585
Grp Volume(v), veh/h	892	936	17	451	36	27
Grp Sat Flow(s),veh/h/ln	1777	1842	1781	1777	1781	1585
Q Serve(g_s), s	34.3	35.1	0.8	4.1	1.3	1.1
Cycle Q Clear(g_c), s	34.3	35.1	0.8	4.1	1.3	1.1
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1045	1083	35	2353	408	363
V/C Ratio(X)	0.85	0.86	0.49	0.19	0.09	0.07
Avail Cap(c_a), veh/h	1130	1171	110	2672	408	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	14.2	40.1	5.4	25.1	25.0
Incr Delay (d2), s/veh	6.2	6.5	10.2	0.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	14.5	0.4	1.3	0.6	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.2	20.8	50.3	5.4	25.5	25.4
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	1828			468	63	
Approach Delay, s/veh	20.5			7.1	25.4	
Approach LOS	C			A	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.4	6.1	53.1		59.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.9	5.1	52.5		62.1
Max Q Clear Time (g_c+l1), s		3.3	2.8	37.1		6.1
Green Ext Time (p_c), s		0.1	0.0	11.4		3.4
Intersection Summary						
HCM 6th Ctrl Delay			18.0			
HCM 6th LOS			B			

Lanes and Geometrics

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



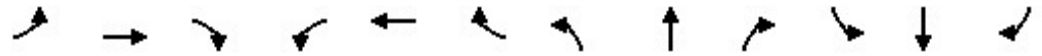
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.995			0.958				0.965
Flt Protected	0.950			0.950				0.967				0.964
Satd. Flow (prot)	1770	3536	0	1770	3522	0	0	1726	0	0	1733	0
Flt Permitted	0.950			0.950				0.887				0.861
Satd. Flow (perm)	1770	3536	0	1770	3522	0	0	1583	0	0	1548	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			7			73				73
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

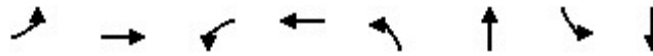
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	1671	8	4	429	16	9	0	4	16	0	6
Future Volume (vph)	10	1671	8	4	429	16	9	0	4	16	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	1741	8	4	447	17	9	0	4	17	0	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	1749	0	4	464	0	0	13	0	0	23	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕		↕		↕
Traffic Volume (vph)	10	1671	4	429	9	0	16	0
Future Volume (vph)	10	1671	4	429	9	0	16	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	56.8	10.4	57.6	22.8	22.8	22.8	22.8
Total Split (%)	10.7%	63.1%	11.6%	64.0%	25.3%	25.3%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	47.5	5.7	47.7		18.6		18.6
Actuated g/C Ratio	0.07	0.62	0.07	0.62		0.24		0.24
v/c Ratio	0.08	0.80	0.03	0.21		0.03		0.05
Control Delay	39.6	15.2	37.8	6.8		0.2		0.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	39.6	15.2	37.8	6.8		0.2		0.2
LOS	D	B	D	A		A		A
Approach Delay		15.3		7.0		0.2		0.2
Approach LOS		B		A		A		A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 13.3
 Intersection LOS: B
 Intersection Capacity Utilization 58.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

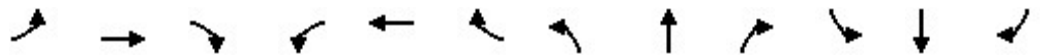


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕			↕	
Traffic Volume (veh/h)	10	1671	8	4	429	16	9	0	4	16	0	6
Future Volume (veh/h)	10	1671	8	4	429	16	9	0	4	16	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1741	8	4	447	17	9	0	4	17	0	6
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	2120	10	9	2015	77	306	14	107	325	12	90
Arrive On Green	0.01	0.58	0.58	0.01	0.58	0.58	0.24	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	3628	17	1781	3491	133	961	60	454	1033	51	383
Grp Volume(v), veh/h	10	852	897	4	227	237	13	0	0	23	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1847	1475	0	0	1467	0	0
Q Serve(g_s), s	0.4	29.7	29.8	0.2	4.8	4.8	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.4	29.7	29.8	0.2	4.8	4.8	0.4	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.07	0.69		0.31	0.74		0.26
Lane Grp Cap(c), veh/h	22	1038	1091	9	1026	1066	427	0	0	427	0	0
V/C Ratio(X)	0.45	0.82	0.82	0.42	0.22	0.22	0.03	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	117	1199	1260	136	1217	1265	427	0	0	427	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	38.0	12.9	12.9	38.4	7.9	7.9	22.8	0.0	0.0	22.9	0.0	0.0
Incr Delay (d2), s/veh	13.5	4.1	4.0	27.1	0.1	0.1	0.1	0.0	0.0	0.2	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	0.3	11.1	11.7	0.1	1.6	1.7	0.2	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	17.0	16.8	65.5	8.0	8.0	22.9	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	D	B	B	E	A	A	C	A	A	C	A	A
Approach Vol, veh/h		1759			468			13				23
Approach Delay, s/veh		17.1			8.5			22.9				23.2
Approach LOS		B			A			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	4.9	49.8		22.8	5.5	49.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.3	5.9	52.3		18.3	5.1	53.1				
Max Q Clear Time (g_c+I1), s		2.4	2.2	31.8		2.8	2.4	6.8				
Green Ext Time (p_c), s		0.0	0.0	13.5		0.0	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									

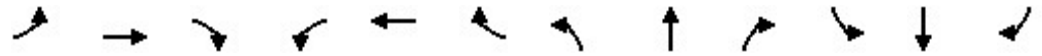
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.850	0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						136					654	654
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

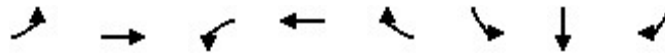
Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	143	1511	2	1	299	11	0	0	0	33	0	135
Future Volume (vph)	143	1511	2	1	299	11	0	0	0	33	0	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	147	1558	2	1	308	11	0	0	0	34	0	139
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	147	1560	0	1	308	11	0	0	0	34	70	69
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

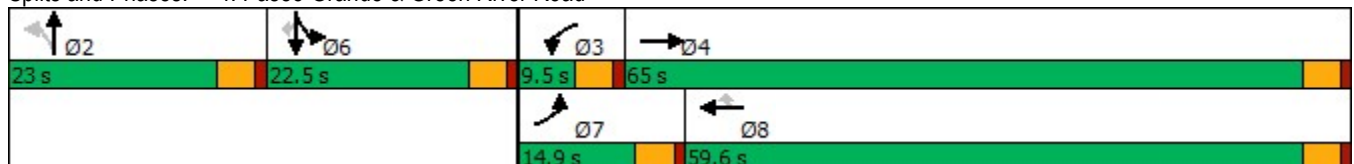


Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations	↖ ↗	↖ ↗	↖	↖ ↗	↖	↖	↖	↖	
Traffic Volume (vph)	143	1511	1	299	11	33	0	135	
Future Volume (vph)	143	1511	1	299	11	33	0	135	
Turn Type	Prot	NA	Prot	NA	Perm	Split	NA	Perm	
Protected Phases	7	4	3	8		6	6		2
Permitted Phases					8			6	
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	14.9	65.0	9.5	59.6	59.6	22.5	22.5	22.5	23.0
Total Split (%)	12.4%	54.2%	7.9%	49.7%	49.7%	18.8%	18.8%	18.8%	19%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	9.3	55.7	5.0	43.5	43.5	18.1	18.1	18.1	
Actuated g/C Ratio	0.09	0.52	0.05	0.40	0.40	0.17	0.17	0.17	
v/c Ratio	0.49	0.85	0.01	0.22	0.02	0.11	0.09	0.09	
Control Delay	54.5	28.3	54.0	21.0	0.0	42.5	0.2	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.5	28.3	54.0	21.0	0.0	42.5	0.2	0.2	
LOS	D	C	D	C	A	D	A	A	
Approach Delay		30.6		20.4			8.5		
Approach LOS		C		C			A		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 107.7
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 27.4
 Intersection LOS: C
 Intersection Capacity Utilization 61.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↕	↔		↕↔		↔	↕↔	↔
Traffic Volume (veh/h)	143	1511	2	1	299	11	0	0	0	33	0	135
Future Volume (veh/h)	143	1511	2	1	299	11	0	0	0	33	0	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	1558	2	1	308	11	0	0	0	34	0	139
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	1802	2	2	1548	690	0	320	0	296	0	527
Arrive On Green	0.06	0.49	0.49	0.00	0.44	0.44	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	3456	3642	5	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	147	760	800	1	308	11	0	0	0	34	0	139
Grp Sat Flow(s),veh/h/ln	1728	1777	1870	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	4.5	40.9	40.9	0.1	5.8	0.4	0.0	0.0	0.0	1.8	0.0	4.1
Cycle Q Clear(g_c), s	4.5	40.9	40.9	0.1	5.8	0.4	0.0	0.0	0.0	1.8	0.0	4.1
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	879	925	2	1548	690	0	320	0	296	0	527
V/C Ratio(X)	0.70	0.86	0.86	0.41	0.20	0.02	0.00	0.00	0.00	0.11	0.00	0.26
Avail Cap(c_a), veh/h	332	994	1045	82	1810	807	0	320	0	296	0	527
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.8	24.1	24.1	54.0	18.9	17.4	0.0	0.0	0.0	38.3	0.0	39.3
Incr Delay (d2), s/veh	4.2	7.4	7.0	84.3	0.1	0.0	0.0	0.0	0.0	0.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	18.1	19.0	0.1	2.4	0.2	0.0	0.0	0.0	0.8	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	31.5	31.2	138.2	18.9	17.4	0.0	0.0	0.0	39.1	0.0	40.5
LnGrp LOS	D	C	C	F	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1707			320			0				173
Approach Delay, s/veh		33.3			19.3			0.0				40.3
Approach LOS		C			B							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	4.6	58.1		22.5	11.1	51.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	60.5		18.0	10.4	55.1				
Max Q Clear Time (g_c+I1), s		0.0	2.1	42.9		6.1	6.5	7.8				
Green Ext Time (p_c), s		0.0	0.0	10.7		0.4	0.1	2.3				

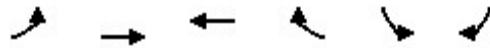
Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.991			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3507	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3507	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			12			19
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

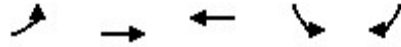
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	35	1461	299	19	16	19
Future Volume (vph)	35	1461	299	19	16	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	36	1491	305	19	16	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	1491	324	0	16	19
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

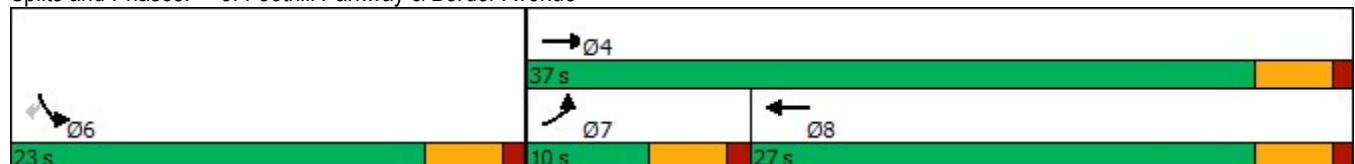


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	35	1461	299	16	19
Future Volume (vph)	35	1461	299	16	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	37.0	27.0	23.0	23.0
Total Split (%)	16.7%	61.7%	45.0%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effect Green (s)	5.5	30.9	27.0	18.5	18.5
Actuated g/C Ratio	0.09	0.53	0.46	0.32	0.32
v/c Ratio	0.22	0.80	0.20	0.03	0.04
Control Delay	28.7	15.1	10.5	14.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	15.1	10.5	14.8	7.6
LOS	C	B	B	B	A
Approach Delay		15.4	10.5	10.9	
Approach LOS		B	B	B	

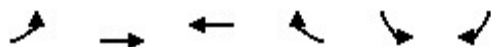
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 58.5
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 14.5
 Intersection LOS: B
 Intersection Capacity Utilization 52.1%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue



HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↶		↶	↶	
Traffic Volume (veh/h)	35	1461	299	19	16	19	
Future Volume (veh/h)	35	1461	299	19	16	19	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	36	1491	305	19	16	19	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	68	1831	1352	84	581	517	
Arrive On Green	0.04	0.52	0.40	0.40	0.33	0.33	
Sat Flow, veh/h	1781	3647	3492	211	1781	1585	
Grp Volume(v), veh/h	36	1491	159	165	16	19	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1832	1781	1585	
Q Serve(g_s), s	1.1	19.9	3.4	3.4	0.3	0.5	
Cycle Q Clear(g_c), s	1.1	19.9	3.4	3.4	0.3	0.5	
Prop In Lane	1.00			0.11	1.00	1.00	
Lane Grp Cap(c), veh/h	68	1831	707	729	581	517	
V/C Ratio(X)	0.53	0.81	0.22	0.23	0.03	0.04	
Avail Cap(c_a), veh/h	173	2036	707	729	581	517	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.8	11.5	11.3	11.3	13.0	13.0	
Incr Delay (d2), s/veh	6.3	2.4	0.2	0.2	0.1	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	6.7	1.2	1.2	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.0	13.9	11.5	11.5	13.1	13.2	
LnGrp LOS	C	B	B	B	B	B	
Approach Vol, veh/h		1527	324		35		
Approach Delay, s/veh		14.4	11.5		13.1		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				33.7	23.0	6.7	27.1
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.5	18.5	5.5	22.5
Max Q Clear Time (g_c+I1), s				21.9	2.5	3.1	5.4
Green Ext Time (p_c), s				7.3	0.0	0.0	1.7
Intersection Summary							
HCM 6th Ctrl Delay			13.8				
HCM 6th LOS			B				

Lanes and Geometrics
6: Chase Drive & Foothill Parkway

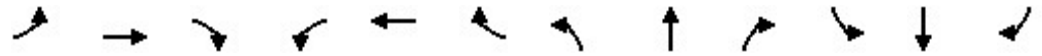


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997							0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	3539	0	1770	3529	0	0	1863	0	1770	1583	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	3539	0	1770	3529	0	0	1863	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							676
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	92	1369	0	1	285	7	0	0	0	6	0	45
Future Volume (vph)	92	1369	0	1	285	7	0	0	0	6	0	45
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	98	1456	0	1	303	7	0	0	0	6	0	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	1456	0	1	310	0	0	0	0	6	48	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

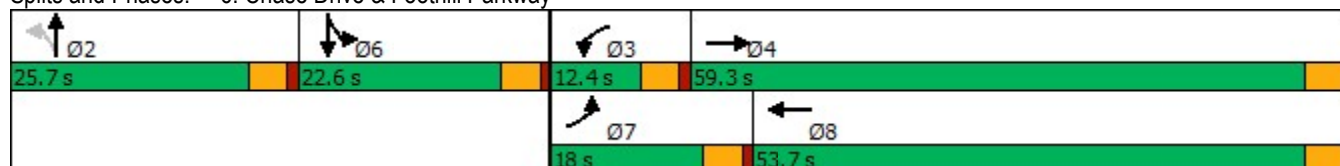


Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	Ø2
Lane Configurations	↖	↗	↖	↗	↘	↘	
Traffic Volume (vph)	92	1369	1	285	6	0	
Future Volume (vph)	92	1369	1	285	6	0	
Turn Type	Prot	NA	Prot	NA	Split	NA	
Protected Phases	7	4	3	8	6	6	2
Permitted Phases							
Detector Phase	7	4	3	8	6	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	18.0	59.3	12.4	53.7	22.6	22.6	25.7
Total Split (%)	15.0%	49.4%	10.3%	44.8%	18.8%	18.8%	21%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	9.7	38.5	5.8	28.4	6.0	6.0	
Actuated g/C Ratio	0.15	0.59	0.09	0.43	0.09	0.09	
v/c Ratio	0.38	0.70	0.01	0.20	0.04	0.06	
Control Delay	32.9	11.8	35.0	12.5	34.5	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.9	11.8	35.0	12.5	34.5	0.2	
LOS	C	B	C	B	C	A	
Approach Delay		13.1		12.6		4.0	
Approach LOS		B		B		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 65.7
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 12.8
 Intersection LOS: B
 Intersection Capacity Utilization 57.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↕		↗	↘	
Traffic Volume (veh/h)	92	1369	0	1	285	7	0	0	0	6	0	45
Future Volume (veh/h)	92	1369	0	1	285	7	0	0	0	6	0	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	1456	0	1	303	7	0	0	0	6	0	48
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	2219	0	4	1956	45	0	4	0	180	0	160
Arrive On Green	0.07	0.62	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.10	0.00	0.10
Sat Flow, veh/h	1781	3647	0	1781	3551	82	0	1870	0	1781	0	1585
Grp Volume(v), veh/h	98	1456	0	1	151	159	0	0	0	6	0	48
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1856	0	1870	0	1781	0	1585
Q Serve(g_s), s	2.7	12.9	0.0	0.0	2.1	2.1	0.0	0.0	0.0	0.2	0.0	1.4
Cycle Q Clear(g_c), s	2.7	12.9	0.0	0.0	2.1	2.1	0.0	0.0	0.0	0.2	0.0	1.4
Prop In Lane	1.00		0.00	1.00		0.04	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	2219	0	4	979	1022	0	4	0	180	0	160
V/C Ratio(X)	0.74	0.66	0.00	0.28	0.15	0.16	0.00	0.00	0.00	0.03	0.00	0.30
Avail Cap(c_a), veh/h	486	3940	0	285	1769	1847	0	802	0	652	0	580
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(l)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	5.9	0.0	24.6	5.4	5.5	0.0	0.0	0.0	20.0	0.0	20.6
Incr Delay (d2), s/veh	7.6	0.3	0.0	37.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	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	1.3	2.9	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	6.2	0.0	61.8	5.5	5.5	0.0	0.0	0.0	20.1	0.0	21.6
LnGrp LOS	C	A	A	E	A	A	A	A	A	C	A	C
Approach Vol, veh/h		1554			311			0				54
Approach Delay, s/veh		7.7			5.7			0.0				21.5
Approach LOS		A			A							C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		0.0	4.6	35.4		9.5	8.2	31.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.2	7.9	54.8		18.1	13.5	49.2				
Max Q Clear Time (g_c+I1), s		0.0	2.0	14.9		3.4	4.7	4.1				
Green Ext Time (p_c), s		0.0	0.0	16.0		0.2	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				7.8								
HCM 6th LOS				A								

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

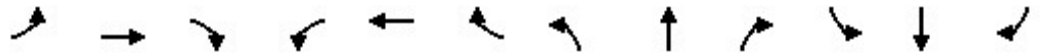


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.955			0.981			0.972				0.968
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3380	0	1770	3472	0	1770	3440	0	1770	3426	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3380	0	1770	3472	0	1770	3440	0	1770	3426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			19			21				35
Link Speed (mph)		30			30			30				30
Link Distance (ft)		4668			1471			1056				776
Travel Time (s)		106.1			33.4			24.0				17.6

Intersection Summary

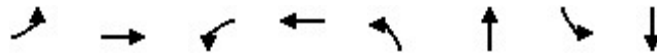
Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	98	948	409	14	238	34	91	89	20	97	265	73
Future Volume (vph)	98	948	409	14	238	34	91	89	20	97	265	73
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	101	977	422	14	245	35	94	92	21	100	273	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	1399	0	14	280	0	94	113	0	100	348	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

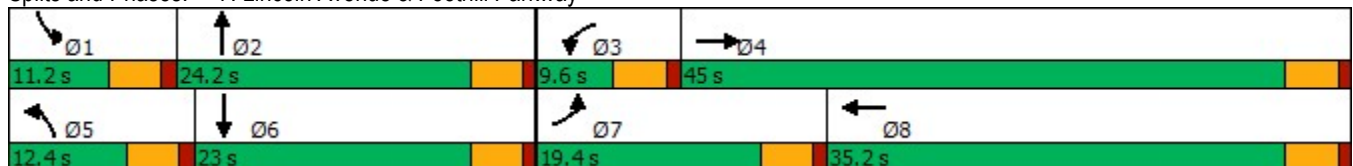


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↕	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	98	948	14	238	91	89	97	265
Future Volume (vph)	98	948	14	238	91	89	97	265
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	19.4	45.0	9.6	35.2	12.4	24.2	11.2	23.0
Total Split (%)	21.6%	50.0%	10.7%	39.1%	13.8%	26.9%	12.4%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	9.9	38.2	5.1	27.9	7.6	19.8	6.7	21.4
Actuated g/C Ratio	0.12	0.48	0.06	0.35	0.09	0.25	0.08	0.27
v/c Ratio	0.46	0.84	0.12	0.23	0.56	0.13	0.68	0.37
Control Delay	40.3	23.2	40.6	19.0	50.6	21.3	61.5	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	23.2	40.6	19.0	50.6	21.3	61.5	25.2
LOS	D	C	D	B	D	C	E	C
Approach Delay		24.3		20.0		34.6		33.3
Approach LOS		C		C		C		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.1
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 26.3
 Intersection LOS: C
 Intersection Capacity Utilization 73.2%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	948	409	14	238	34	91	89	20	97	265	73
Future Volume (veh/h)	98	948	409	14	238	34	91	89	20	97	265	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	977	422	14	245	35	94	92	21	100	273	75
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	1114	474	30	1257	177	120	685	152	127	666	179
Arrive On Green	0.07	0.46	0.46	0.02	0.40	0.40	0.07	0.24	0.24	0.07	0.24	0.24
Sat Flow, veh/h	1781	2427	1034	1781	3127	441	1781	2891	640	1781	2767	746
Grp Volume(v), veh/h	101	711	688	14	138	142	94	55	58	100	173	175
Grp Sat Flow(s),veh/h/ln	1781	1777	1684	1781	1777	1791	1781	1777	1755	1781	1777	1736
Q Serve(g_s), s	4.6	30.1	31.1	0.6	4.2	4.3	4.3	2.0	2.2	4.6	6.8	7.1
Cycle Q Clear(g_c), s	4.6	30.1	31.1	0.6	4.2	4.3	4.3	2.0	2.2	4.6	6.8	7.1
Prop In Lane	1.00		0.61	1.00		0.25	1.00		0.36	1.00		0.43
Lane Grp Cap(c), veh/h	131	815	773	30	715	720	120	421	415	127	427	418
V/C Ratio(X)	0.77	0.87	0.89	0.47	0.19	0.20	0.78	0.13	0.14	0.79	0.41	0.42
Avail Cap(c_a), veh/h	319	865	820	109	715	720	169	421	415	143	427	418
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	37.9	20.3	20.6	40.6	16.1	16.2	38.2	25.0	25.1	38.0	26.6	26.7
Incr Delay (d2), s/veh	9.3	9.4	11.4	11.3	0.1	0.1	14.1	0.6	0.7	22.2	2.8	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	2.3	13.5	13.6	0.4	1.7	1.7	2.3	0.9	1.0	2.8	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	29.7	32.0	51.8	16.3	16.3	52.3	25.7	25.8	60.2	29.4	29.7
LnGrp LOS	D	C	C	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1500			294			207			448	
Approach Delay, s/veh		31.9			18.0			37.8			36.4	
Approach LOS		C			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	24.2	5.9	42.7	10.1	24.5	10.6	38.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.7	19.7	5.1	40.5	7.9	18.5	14.9	30.7				
Max Q Clear Time (g_c+I1), s	6.6	4.2	2.6	33.1	6.3	9.1	6.6	6.3				
Green Ext Time (p_c), s	0.0	0.4	0.0	5.1	0.0	1.4	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			31.6									
HCM 6th LOS			C									

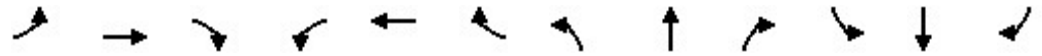
Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%		0%				0%					
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.850			0.850			0.850			0.850		
Frt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Frt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			146			205			82
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	14	181	57	297	359	140	105	256	86	205	1130	29
Future Volume (vph)	14	181	57	297	359	140	105	256	86	205	1130	29
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	15	189	59	309	374	146	109	267	90	214	1177	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	189	59	309	374	146	109	267	90	214	1177	30
Intersection Summary												

Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	181	57	297	359	140	105	256	86	205	1130	29
Future Volume (vph)	14	181	57	297	359	140	105	256	86	205	1130	29
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	9.6	22.5	22.5	13.1	26.0	14.3	9.5	30.1	30.1	14.3	34.9	9.6
Total Split (%)	12.0%	28.1%	28.1%	16.4%	32.5%	17.9%	11.9%	37.6%	37.6%	17.9%	43.6%	12.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.1	9.6	9.6	8.6	17.2	30.7	5.0	25.9	25.9	9.0	31.9	41.6
Actuated g/C Ratio	0.07	0.13	0.13	0.12	0.24	0.43	0.07	0.36	0.36	0.13	0.45	0.58
v/c Ratio	0.06	0.40	0.15	0.74	0.44	0.19	0.45	0.21	0.13	0.50	0.74	0.03
Control Delay	32.9	30.5	0.8	43.8	26.1	3.5	39.2	16.8	0.4	33.7	21.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	30.5	0.8	43.8	26.1	3.5	39.2	16.8	0.4	33.7	21.2	0.1
LOS	C	C	A	D	C	A	D	B	A	C	C	A
Approach Delay		24.0			28.7			18.9			22.6	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 71.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 23.9

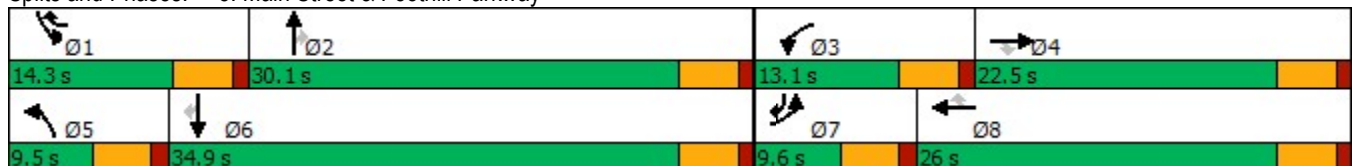
Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Analysis Period (min) 15

























Splits and Phases: 8: Main Street & Foothill Parkway



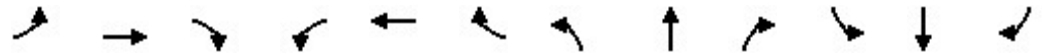
HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

Skyline Village Commercial Center TIA

04/22/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	181	57	297	359	140	105	256	86	205	1130	29
Future Volume (veh/h)	14	181	57	297	359	140	105	256	86	205	1130	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	189	59	309	374	146	109	267	90	214	1177	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	341	152	406	694	455	224	1516	676	317	1611	747
Arrive On Green	0.02	0.10	0.10	0.12	0.20	0.20	0.06	0.43	0.43	0.09	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	15	189	59	309	374	146	109	267	90	214	1177	30
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.3	3.4	2.3	5.8	6.3	4.9	2.0	3.1	2.3	4.0	18.2	0.7
Cycle Q Clear(g_c), s	0.3	3.4	2.3	5.8	6.3	4.9	2.0	3.1	2.3	4.0	18.2	0.7
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	63	341	152	406	694	455	224	1516	676	317	1611	747
V/C Ratio(X)	0.24	0.55	0.39	0.76	0.54	0.32	0.49	0.18	0.13	0.68	0.73	0.04
Avail Cap(c_a), veh/h	263	954	425	443	1139	653	258	1516	676	505	1611	747
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	32.5	28.9	28.5	28.7	24.3	18.8	30.3	11.9	11.7	29.5	15.0	9.5
Incr Delay (d2), s/veh	1.9	1.4	1.6	6.9	0.7	0.4	1.6	0.3	0.4	2.5	3.0	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	0.1	1.5	0.9	2.7	2.6	1.7	0.9	1.2	0.8	1.7	7.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.4	30.4	30.1	35.6	24.9	19.2	31.9	12.2	12.1	32.0	17.9	9.6
LnGrp LOS	C	C	C	D	C	B	C	B	B	C	B	A
Approach Vol, veh/h		263			829			466			1421	
Approach Delay, s/veh		30.5			27.9			16.8			19.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	33.1	12.4	10.9	8.8	34.9	5.7	17.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	25.6	8.6	18.0	5.0	30.4	5.1	21.5				
Max Q Clear Time (g_c+I1), s	6.0	5.1	7.8	5.4	4.0	20.2	2.3	8.3				
Green Ext Time (p_c), s	0.2	1.9	0.1	1.0	0.0	5.9	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				22.6								
HCM 6th LOS				C								

Lanes and Geometrics
 9: Fullerton Avenue & Foothill Parkway

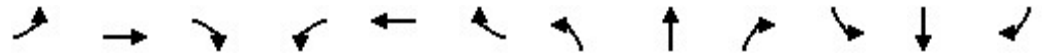


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.961				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			205			46			205
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	96	1178	125	44	363	33	36	127	45	117	231	53
Future Volume (vph)	96	1178	125	44	363	33	36	127	45	117	231	53
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	99	1214	129	45	374	34	37	131	46	121	238	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	1214	129	45	374	34	37	177	0	121	238	55
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘	↗↗	↘	↗	↘
Traffic Volume (vph)	96	1178	125	44	363	33	36	127	117	231	53
Future Volume (vph)	96	1178	125	44	363	33	36	127	117	231	53
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	14.8	36.0	36.0	9.5	30.7	30.7	10.6	23.4	11.1	23.9	23.9
Total Split (%)	18.5%	45.0%	45.0%	11.9%	38.4%	38.4%	13.3%	29.3%	13.9%	29.9%	29.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.8	30.2	30.2	5.0	24.7	24.7	6.0	19.1	6.7	24.3	24.3
Actuated g/C Ratio	0.12	0.40	0.40	0.07	0.33	0.33	0.08	0.26	0.09	0.32	0.32
v/c Ratio	0.48	0.85	0.18	0.38	0.32	0.05	0.26	0.20	0.77	0.39	0.08
Control Delay	40.4	28.2	3.2	45.3	20.5	0.2	39.6	18.2	68.5	25.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	28.2	3.2	45.3	20.5	0.2	39.6	18.2	68.5	25.8	0.2
LOS	D	C	A	D	C	A	D	B	E	C	A
Approach Delay		26.8			21.5			21.9		34.9	
Approach LOS		C			C			C		C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 74.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 26.8

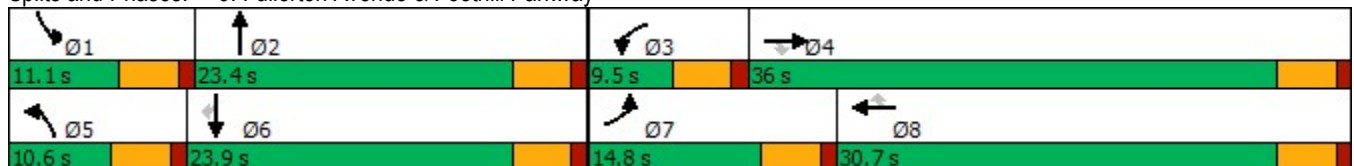
Intersection LOS: C

Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	1178	125	44	363	33	36	127	45	117	231	53
Future Volume (veh/h)	96	1178	125	44	363	33	36	127	45	117	231	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1214	129	45	374	34	37	131	46	121	238	55
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1389	619	72	1277	570	63	646	218	153	557	472
Arrive On Green	0.07	0.39	0.39	0.04	0.36	0.36	0.04	0.25	0.25	0.09	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2608	880	1781	1870	1585
Grp Volume(v), veh/h	99	1214	129	45	374	34	37	88	89	121	238	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1712	1781	1870	1585
Q Serve(g_s), s	4.2	24.1	4.1	1.9	5.8	1.1	1.6	3.0	3.2	5.1	7.8	1.9
Cycle Q Clear(g_c), s	4.2	24.1	4.1	1.9	5.8	1.1	1.6	3.0	3.2	5.1	7.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	128	1389	619	72	1277	570	63	440	424	153	557	472
V/C Ratio(X)	0.77	0.87	0.21	0.63	0.29	0.06	0.58	0.20	0.21	0.79	0.43	0.12
Avail Cap(c_a), veh/h	240	1466	654	117	1277	570	142	440	424	154	557	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(l)	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	21.5	15.4	36.1	17.5	16.0	36.3	22.7	22.8	34.2	21.6	19.5
Incr Delay (d2), s/veh	9.6	6.0	0.2	8.7	0.1	0.0	8.2	1.0	1.1	23.9	2.4	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	2.1	10.4	1.4	1.0	2.3	0.4	0.8	1.3	1.4	3.2	3.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	27.5	15.6	44.8	17.6	16.1	44.5	23.8	23.9	58.1	24.0	20.0
LnGrp LOS	D	C	B	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1442			453			214			414	
Approach Delay, s/veh		27.6			20.2			27.4			33.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	23.4	7.6	34.3	7.2	27.2	10.0	31.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	18.9	5.0	31.5	6.1	19.4	10.3	26.2				
Max Q Clear Time (g_c+I1), s	7.1	5.2	3.9	26.1	3.6	9.8	6.2	7.8				
Green Ext Time (p_c), s	0.0	0.7	0.0	3.7	0.0	1.0	0.1	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Appendix C

Existing Plus Project Conditions
Intersection Analysis Worksheets

Lanes and Geometrics
1: Serfas Club Drive & Green River Road

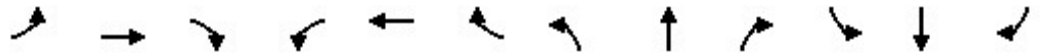


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.962			0.947				0.850
Flt Protected	0.950			0.950				0.999		0.950	0.965	
Satd. Flow (prot)	3433	3536	0	1770	3405	0	0	1762	0	1681	1708	1583
Flt Permitted	0.950			0.950				0.661		0.950	0.965	
Satd. Flow (perm)	3433	3536	0	1770	3405	0	0	1166	0	1681	1708	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			52			23				126
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	287	453	3	16	1036	352	1	40	26	38	6	111
Future Volume (vph)	287	453	3	16	1036	352	1	40	26	38	6	111
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	326	515	3	18	1177	400	1	45	30	43	7	126
Shared Lane Traffic (%)										42%		
Lane Group Flow (vph)	326	518	0	18	1577	0	0	76	0	25	25	126
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

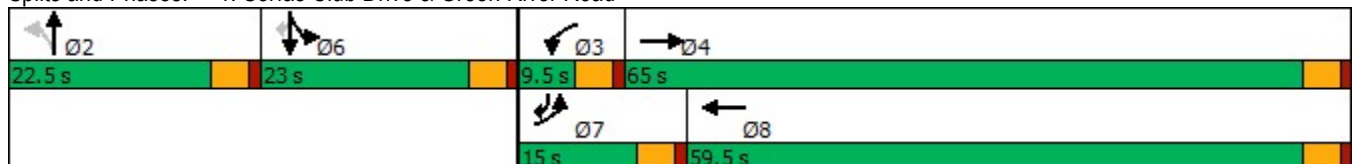


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	287	453	16	1036	1	40	38	6	111
Future Volume (vph)	287	453	16	1036	1	40	38	6	111
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	15.0	65.0	9.5	59.5	22.5	22.5	23.0	23.0	15.0
Total Split (%)	12.5%	54.2%	7.9%	49.6%	18.8%	18.8%	19.2%	19.2%	12.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	10.5	66.3	5.0	54.8		18.1	7.1	7.1	17.7
Actuated g/C Ratio	0.10	0.64	0.05	0.53		0.17	0.07	0.07	0.17
v/c Ratio	0.94	0.23	0.21	0.87		0.34	0.22	0.22	0.34
Control Delay	83.3	9.9	56.5	28.3		34.3	52.2	52.0	9.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	83.3	9.9	56.5	28.3		34.3	52.2	52.0	9.1
LOS	F	A	E	C		C	D	D	A
Approach Delay		38.2		28.6		34.3		21.3	
Approach LOS		D		C		C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 104.2
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 31.3
 Intersection Capacity Utilization 67.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↔			↕↔		↔	↕↔	↔
Traffic Volume (veh/h)	287	453	3	16	1036	352	1	40	26	38	6	111
Future Volume (veh/h)	287	453	3	16	1036	352	1	40	26	38	6	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	515	3	18	1177	400	1	45	30	48	0	126
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	2043	12	34	1279	425	4	168	112	324	0	295
Arrive On Green	0.10	0.56	0.56	0.02	0.49	0.49	0.16	0.16	0.16	0.09	0.00	0.09
Sat Flow, veh/h	3456	3622	21	1781	2620	871	23	1033	689	3563	0	1585
Grp Volume(v), veh/h	326	253	265	18	790	787	76	0	0	48	0	126
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1714	1745	0	0	1781	0	1585
Q Serve(g_s), s	10.4	8.0	8.0	1.1	45.3	48.0	4.2	0.0	0.0	1.4	0.0	7.8
Cycle Q Clear(g_c), s	10.4	8.0	8.0	1.1	45.3	48.0	4.2	0.0	0.0	1.4	0.0	7.8
Prop In Lane	1.00		0.01	1.00		0.51	0.01		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	328	1002	1053	34	868	837	284	0	0	324	0	295
V/C Ratio(X)	0.99	0.25	0.25	0.53	0.91	0.94	0.27	0.00	0.00	0.15	0.00	0.43
Avail Cap(c_a), veh/h	328	1002	1053	81	884	853	284	0	0	596	0	416
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	1.00
Uniform Delay (d), s/veh	50.0	12.2	12.2	53.7	26.0	26.8	40.5	0.0	0.0	46.3	0.0	39.8
Incr Delay (d2), s/veh	47.7	0.1	0.1	12.0	13.2	17.9	2.3	0.0	0.0	0.2	0.0	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	6.7	3.1	3.3	0.6	21.4	22.8	2.0	0.0	0.0	0.6	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.6	12.4	12.4	65.6	39.2	44.7	42.8	0.0	0.0	46.5	0.0	40.8
LnGrp LOS	F	B	B	E	D	D	D	A	A	D	A	D
Approach Vol, veh/h		844			1595			76				174
Approach Delay, s/veh		45.3			42.2			42.8				42.3
Approach LOS		D			D			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.6	66.8		14.5	15.0	58.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	60.5		18.5	10.5	55.0				
Max Q Clear Time (g_c+I1), s		6.2	3.1	10.0		9.8	12.4	50.0				
Green Ext Time (p_c), s		0.2	0.0	3.5		0.3	0.0	3.9				

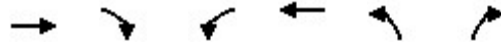
Intersection Summary

HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3511	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3511	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					47
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

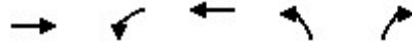
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	465	27	19	1264	94	41
Future Volume (vph)	465	27	19	1264	94	41
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	528	31	22	1436	107	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	559	0	22	1436	107	47
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road

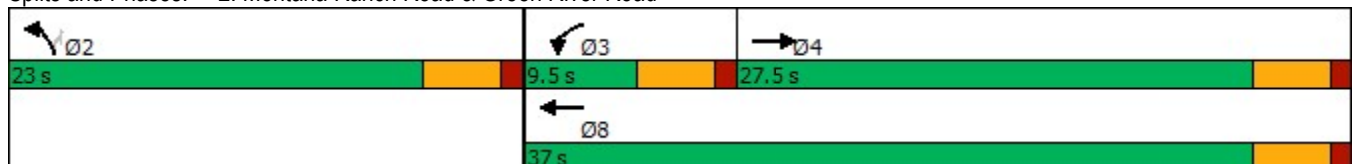


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	465	19	1264	94	41
Future Volume (vph)	465	19	1264	94	41
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	27.5	9.5	37.0	23.0	23.0
Total Split (%)	45.8%	15.8%	61.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	28.3	5.0	30.2	18.6	18.6
Actuated g/C Ratio	0.49	0.09	0.52	0.32	0.32
v/c Ratio	0.32	0.14	0.78	0.19	0.09
Control Delay	10.0	27.9	14.6	16.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	27.9	14.6	16.3	5.9
LOS	A	C	B	B	A
Approach Delay	10.0		14.8	13.2	
Approach LOS	A		B	B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 57.8
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 13.4
 Intersection LOS: B
 Intersection Capacity Utilization 47.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	465	27	19	1264	94	41
Future Volume (veh/h)	465	27	19	1264	94	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	528	31	22	1436	107	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1370	80	46	1805	590	525
Arrive On Green	0.40	0.40	0.03	0.51	0.33	0.33
Sat Flow, veh/h	3505	200	1781	3647	1781	1585
Grp Volume(v), veh/h	275	284	22	1436	107	47
Grp Sat Flow(s),veh/h/ln	1777	1834	1781	1777	1781	1585
Q Serve(g_s), s	6.1	6.1	0.7	18.6	2.4	1.1
Cycle Q Clear(g_c), s	6.1	6.1	0.7	18.6	2.4	1.1
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	714	737	46	1805	590	525
V/C Ratio(X)	0.38	0.39	0.48	0.80	0.18	0.09
Avail Cap(c_a), veh/h	731	755	159	2066	590	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	11.8	26.9	11.4	13.3	12.9
Incr Delay (d2), s/veh	0.3	0.3	7.5	2.0	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.2	0.4	6.2	1.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.2	12.2	34.3	13.3	14.0	13.2
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	559			1458	154	
Approach Delay, s/veh	12.2			13.6	13.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.0	5.9	27.0		32.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.5	5.0	23.0		32.5
Max Q Clear Time (g_c+l1), s		4.4	2.7	8.1		20.6
Green Ext Time (p_c), s		0.3	0.0	3.0		7.8
Intersection Summary						
HCM 6th Ctrl Delay			13.3			
HCM 6th LOS			B			

Lanes and Geometrics

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



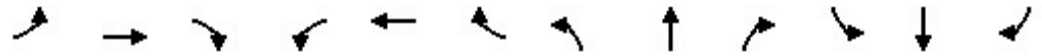
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.997			0.981				0.948
Flt Protected	0.950			0.950				0.959				0.970
Satd. Flow (prot)	1770	3529	0	1770	3529	0	0	1752	0	0	1713	0
Flt Permitted	0.950			0.950				0.853				0.860
Satd. Flow (perm)	1770	3529	0	1770	3529	0	0	1559	0	0	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			87				87
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

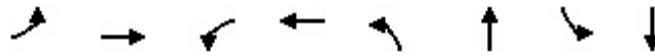
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	16	491	12	7	1263	29	11	0	2	30	0	19
Future Volume (vph)	16	491	12	7	1263	29	11	0	2	30	0	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	552	13	8	1419	33	12	0	2	34	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	565	0	8	1452	0	0	14	0	0	55	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷		↷		↷
Traffic Volume (vph)	16	491	7	1263	11	0	30	0
Future Volume (vph)	16	491	7	1263	11	0	30	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	41.2	10.4	42.0	23.4	23.4	23.4	23.4
Total Split (%)	12.8%	54.9%	13.9%	56.0%	31.2%	31.2%	31.2%	31.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	34.0	5.8	34.1		19.1		19.1
Actuated g/C Ratio	0.08	0.53	0.09	0.53		0.30		0.30
v/c Ratio	0.13	0.30	0.05	0.77		0.03		0.11
Control Delay	32.8	9.1	30.7	15.7		0.1		3.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	32.8	9.1	30.7	15.7		0.1		3.0
LOS	C	A	C	B		A		A
Approach Delay		9.9		15.8		0.1		3.0
Approach LOS		A		B		A		A

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 64

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 13.7

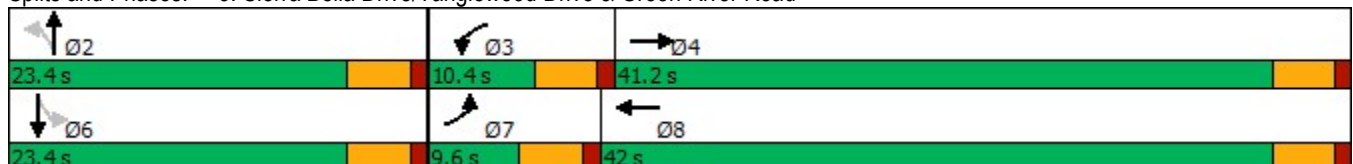
Intersection LOS: B

Intersection Capacity Utilization 47.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

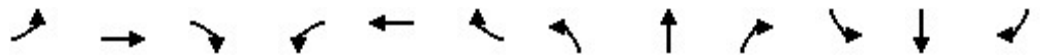


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↕	
Traffic Volume (veh/h)	16	491	12	7	1263	29	11	0	2	30	0	19
Future Volume (veh/h)	16	491	12	7	1263	29	11	0	2	30	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	552	13	8	1419	33	12	0	2	34	0	21
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	1779	42	18	1741	40	446	8	59	331	20	162
Arrive On Green	0.02	0.50	0.50	0.01	0.49	0.49	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1781	3549	84	1781	3550	82	1214	28	207	852	71	570
Grp Volume(v), veh/h	18	276	289	8	710	742	14	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1856	1448	0	0	1493	0	0
Q Serve(g_s), s	0.7	6.1	6.1	0.3	22.5	22.6	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.7	6.1	6.1	0.3	22.5	22.6	0.4	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.04	0.86		0.14	0.62		0.38
Lane Grp Cap(c), veh/h	38	891	930	18	872	910	513	0	0	513	0	0
V/C Ratio(X)	0.47	0.31	0.31	0.43	0.81	0.82	0.03	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	137	983	1026	158	1004	1049	513	0	0	513	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(l)	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	32.1	9.8	9.8	32.6	14.3	14.4	17.1	0.0	0.0	17.5	0.0	0.0
Incr Delay (d2), s/veh	8.9	0.2	0.2	15.3	4.6	4.5	0.1	0.0	0.0	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	0.4	2.1	2.2	0.2	8.8	9.2	0.2	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	10.0	10.0	48.0	19.0	18.9	17.2	0.0	0.0	17.9	0.0	0.0
LnGrp LOS	D	A	A	D	B	B	B	A	A	B	A	A
Approach Vol, veh/h		583			1460			14				55
Approach Delay, s/veh		10.9			19.1			17.2				17.9
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	5.2	37.8		23.4	5.9	37.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.9	5.9	36.7		18.9	5.1	37.5				
Max Q Clear Time (g_c+I1), s		2.4	2.3	8.1		3.6	2.7	24.6				
Green Ext Time (p_c), s		0.0	0.0	3.7		0.2	0.0	8.0				
Intersection Summary												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								

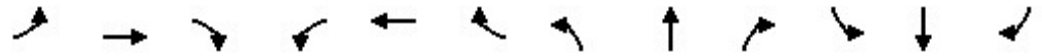
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.851	0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						115						179
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	257	256	0	0	954	44	0	0	0	36	1	315
Future Volume (vph)	257	256	0	0	954	44	0	0	0	36	1	315
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	292	291	0	0	1084	50	0	0	0	41	1	358
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	292	291	0	0	1084	50	0	0	0	41	180	179
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

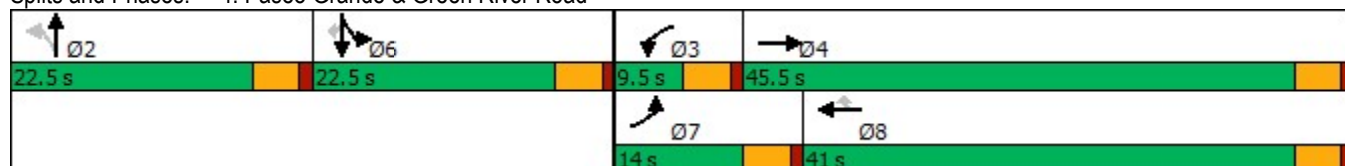


Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR	Ø2	Ø3
Lane Configurations	↔↔	↕↔	↕↕	↔	↔	↔	↔		
Traffic Volume (vph)	257	256	954	44	36	1	315		
Future Volume (vph)	257	256	954	44	36	1	315		
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm		
Protected Phases	7	4	8		6	6		2	3
Permitted Phases				8			6		
Detector Phase	7	4	8	8	6	6	6		
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	45.5	41.0	41.0	22.5	22.5	22.5	22.5	9.5
Total Split (%)	14.0%	45.5%	41.0%	41.0%	22.5%	22.5%	22.5%	23%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	None
Act Effct Green (s)	9.5	48.9	34.9	34.9	18.0	18.0	18.0		
Actuated g/C Ratio	0.10	0.50	0.35	0.35	0.18	0.18	0.18		
v/c Ratio	0.88	0.17	0.86	0.08	0.13	0.43	0.43		
Control Delay	72.2	13.8	38.0	0.2	35.7	9.1	9.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	72.2	13.8	38.0	0.2	35.7	9.1	9.0		
LOS	E	B	D	A	D	A	A		
Approach Delay		43.1	36.3			11.8			
Approach LOS		D	D			B			

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 98.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 33.6
 Intersection LOS: C
 Intersection Capacity Utilization 51.5%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↕	↔		↕↔		↔	↕↔	↔
Traffic Volume (veh/h)	257	256	0	0	954	44	0	0	0	36	1	315
Future Volume (veh/h)	257	256	0	0	954	44	0	0	0	36	1	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	291	0	0	1084	50	0	0	0	41	0	359
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	1746	0	2	1235	551	0	346	0	329	0	586
Arrive On Green	0.10	0.49	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	3456	3647	0	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	292	291	0	0	1084	50	0	0	0	41	0	359
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	8.1	4.4	0.0	0.0	27.9	2.1	0.0	0.0	0.0	1.9	0.0	10.1
Cycle Q Clear(g_c), s	8.1	4.4	0.0	0.0	27.9	2.1	0.0	0.0	0.0	1.9	0.0	10.1
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	1746	0	2	1235	551	0	346	0	329	0	586
V/C Ratio(X)	0.87	0.17	0.00	0.00	0.88	0.09	0.00	0.00	0.00	0.12	0.00	0.61
Avail Cap(c_a), veh/h	337	1746	0	92	1333	594	0	346	0	329	0	586
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(l)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	13.7	0.0	0.0	29.8	21.4	0.0	0.0	0.0	33.1	0.0	36.5
Incr Delay (d2), s/veh	20.3	0.0	0.0	0.0	6.6	0.1	0.0	0.0	0.0	0.8	0.0	4.7
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	4.4	1.7	0.0	0.0	12.6	0.8	0.0	0.0	0.0	0.9	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	13.8	0.0	0.0	36.4	21.5	0.0	0.0	0.0	33.9	0.0	41.2
LnGrp LOS	E	B	A	A	D	C	A	A	A	C	A	D
Approach Vol, veh/h		583			1134			0				400
Approach Delay, s/veh		38.7			35.8			0.0				40.4
Approach LOS		D			D							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	0.0	52.3		22.5	14.0	38.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	41.0		18.0	9.5	36.5				
Max Q Clear Time (g_c+I1), s		0.0	0.0	6.4		12.1	10.1	29.9				
Green Ext Time (p_c), s		0.0	0.0	2.0		0.8	0.0	4.0				

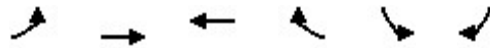
Intersection Summary

HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.997			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3529	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3529	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			4			49
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

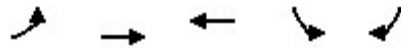
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	18	264	931	22	27	46
Future Volume (vph)	18	264	931	22	27	46
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	19	281	990	23	29	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	281	1013	0	29	49
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

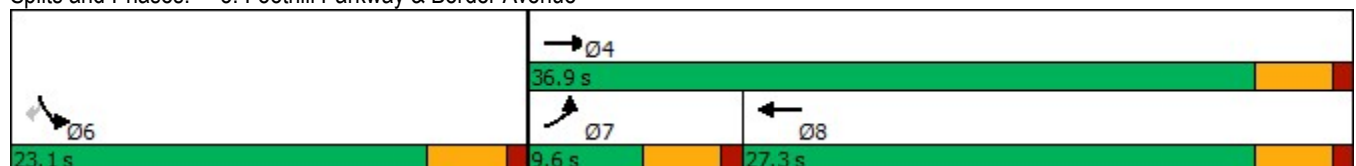


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↖	↗
Traffic Volume (vph)	18	264	931	27	46
Future Volume (vph)	18	264	931	27	46
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	36.9	27.3	23.1	23.1
Total Split (%)	16.0%	61.5%	45.5%	38.5%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effect Green (s)	5.2	21.8	20.2	18.8	18.8
Actuated g/C Ratio	0.10	0.44	0.41	0.38	0.38
v/c Ratio	0.10	0.18	0.71	0.04	0.08
Control Delay	24.6	8.3	15.8	12.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	8.3	15.8	12.6	5.4
LOS	C	A	B	B	A
Approach Delay		9.4	15.8	8.1	
Approach LOS		A	B	A	

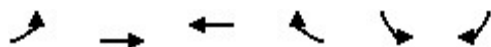
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 49.8
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 14.0
 Intersection LOS: B
 Intersection Capacity Utilization 38.1%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue

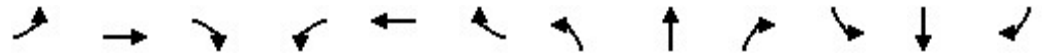


HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	18	264	931	22	27	46	
Future Volume (veh/h)	18	264	931	22	27	46	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	19	281	990	23	29	49	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	41	1671	1281	30	636	566	
Arrive On Green	0.02	0.47	0.36	0.36	0.36	0.36	
Sat Flow, veh/h	1781	3647	3643	82	1781	1585	
Grp Volume(v), veh/h	19	281	496	517	29	49	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1856	1781	1585	
Q Serve(g_s), s	0.5	2.4	12.9	12.9	0.6	1.1	
Cycle Q Clear(g_c), s	0.5	2.4	12.9	12.9	0.6	1.1	
Prop In Lane	1.00			0.04	1.00	1.00	
Lane Grp Cap(c), veh/h	41	1671	641	670	636	566	
V/C Ratio(X)	0.46	0.17	0.77	0.77	0.05	0.09	
Avail Cap(c_a), veh/h	174	2210	777	812	636	566	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	25.1	7.9	14.8	14.8	11.0	11.1	
Incr Delay (d2), s/veh	7.9	0.0	4.0	3.8	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.7	5.1	5.3	0.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.0	8.0	18.7	18.6	11.1	11.4	
LnGrp LOS	C	A	B	B	B	B	
Approach Vol, veh/h		300	1013		78		
Approach Delay, s/veh		9.6	18.6		11.3		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				29.0	23.1	5.7	23.3
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.4	18.6	5.1	22.8
Max Q Clear Time (g_c+I1), s				4.4	3.1	2.5	14.9
Green Ext Time (p_c), s				1.9	0.1	0.0	3.9
Intersection Summary							
HCM 6th Ctrl Delay			16.3				
HCM 6th LOS			B				

Lanes and Geometrics
6: Chase Drive & Foothill Parkway

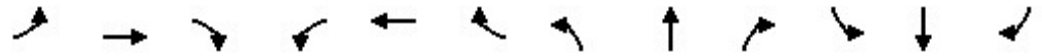


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999			0.920				0.850
Flt Protected	0.950			0.950				0.980		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	0	1679	0	1770	1583	0
Flt Permitted	0.950			0.950				0.210		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3536	0	0	360	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136					68				549
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

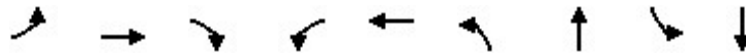
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	11	244	53	82	829	5	53	1	79	10	0	89
Future Volume (vph)	11	244	53	82	829	5	53	1	79	10	0	89
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	265	58	89	901	5	58	1	86	11	0	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	265	58	89	906	0	0	145	0	11	97	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

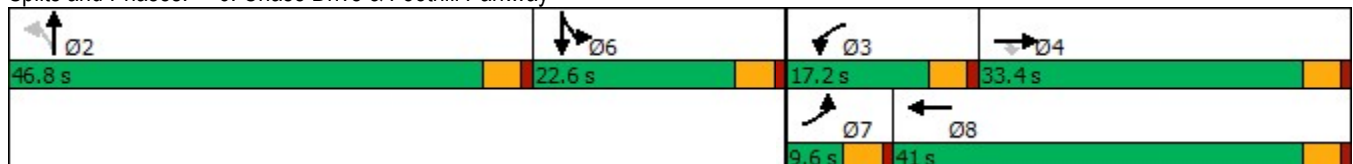


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	244	53	82	829	53	1	10	0
Future Volume (vph)	11	244	53	82	829	53	1	10	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Split	NA
Protected Phases	7	4		3	8		2	6	6
Permitted Phases			4			2			
Detector Phase	7	4	4	3	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	33.4	33.4	17.2	41.0	46.8	46.8	22.6	22.6
Total Split (%)	8.0%	27.8%	27.8%	14.3%	34.2%	39.0%	39.0%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.1	20.8	20.8	10.0	31.2		42.6	6.2	6.2
Actuated g/C Ratio	0.05	0.22	0.22	0.10	0.33		0.45	0.07	0.07
v/c Ratio	0.13	0.34	0.13	0.48	0.78		0.73	0.10	0.16
Control Delay	50.3	33.9	0.6	50.8	34.8		38.1	47.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	50.3	33.9	0.6	50.8	34.8		38.1	47.4	0.6
LOS	D	C	A	D	C		D	D	A
Approach Delay		28.7			36.2		38.1		5.3
Approach LOS		C			D		D		A

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 95.3	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 53.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	244	53	82	829	5	53	1	79	10	0	89
Future Volume (veh/h)	11	244	53	82	829	5	53	1	79	10	0	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	265	58	89	901	5	58	1	86	11	0	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	1131	504	127	1355	8	94	2	139	190	0	169
Arrive On Green	0.02	0.32	0.32	0.07	0.37	0.37	0.14	0.14	0.14	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3623	20	664	11	985	1781	0	1585
Grp Volume(v), veh/h	12	265	58	89	442	464	145	0	0	11	0	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1660	0	0	1781	0	1585
Q Serve(g_s), s	0.3	2.7	1.3	2.4	10.3	10.3	4.1	0.0	0.0	0.3	0.0	2.9
Cycle Q Clear(g_c), s	0.3	2.7	1.3	2.4	10.3	10.3	4.1	0.0	0.0	0.3	0.0	2.9
Prop In Lane	1.00		1.00	1.00		0.01	0.40		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	27	1131	504	127	665	698	234	0	0	190	0	169
V/C Ratio(X)	0.44	0.23	0.11	0.70	0.66	0.66	0.62	0.00	0.00	0.06	0.00	0.58
Avail Cap(c_a), veh/h	183	2071	924	456	1308	1374	1416	0	0	650	0	579
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	12.5	12.0	22.5	12.9	12.9	20.0	0.0	0.0	19.9	0.0	21.1
Incr Delay (d2), s/veh	10.7	0.1	0.1	6.8	1.2	1.1	2.7	0.0	0.0	0.1	0.0	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	0.2	0.9	0.4	1.2	3.6	3.8	1.6	0.0	0.0	0.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	12.6	12.1	29.4	14.1	14.0	22.7	0.0	0.0	20.0	0.0	24.2
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		335			995			145				108
Approach Delay, s/veh		13.3			15.4			22.7				23.7
Approach LOS		B			B			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.5	8.0	20.3		9.8	5.3	23.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.3	12.7	28.9		18.1	5.1	36.5				
Max Q Clear Time (g_c+I1), s		6.1	4.4	4.7		4.9	2.3	12.3				
Green Ext Time (p_c), s		0.9	0.1	1.9		0.4	0.0	6.3				
Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

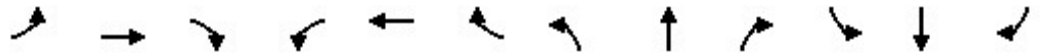


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.962			0.985			0.979				0.935
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3405	0	1770	3486	0	1770	3465	0	1770	3309	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	3486	0	1770	3465	0	1770	3309	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52			13			22			129	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

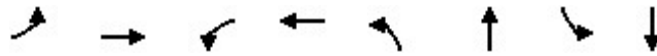
Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	111	329	111	26	582	67	236	249	40	69	149	115
Future Volume (vph)	111	329	111	26	582	67	236	249	40	69	149	115
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	125	370	125	29	654	75	265	280	45	78	167	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	495	0	29	729	0	265	325	0	78	296	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

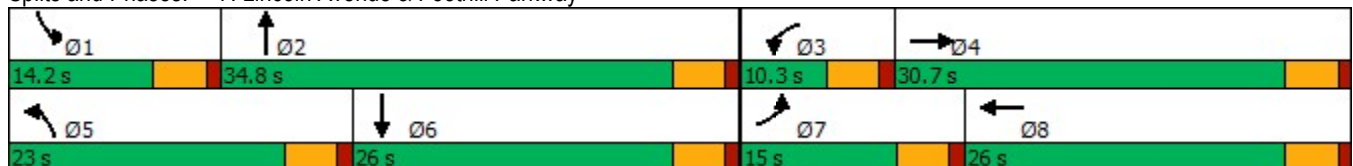


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	111	329	26	582	236	249	69	149
Future Volume (vph)	111	329	26	582	236	249	69	149
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	15.0	30.7	10.3	26.0	23.0	34.8	14.2	26.0
Total Split (%)	16.7%	34.1%	11.4%	28.9%	25.6%	38.7%	15.8%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	9.6	30.9	5.8	20.7	16.5	32.2	8.4	21.7
Actuated g/C Ratio	0.11	0.36	0.07	0.24	0.19	0.37	0.10	0.25
v/c Ratio	0.64	0.40	0.25	0.87	0.79	0.25	0.46	0.32
Control Delay	53.4	21.0	45.5	43.8	51.4	19.7	47.0	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	21.0	45.5	43.8	51.4	19.7	47.0	16.4
LOS	D	C	D	D	D	B	D	B
Approach Delay		27.5		43.8		34.0		22.8
Approach LOS		C		D		C		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 86.6
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 33.7
 Intersection LOS: C
 Intersection Capacity Utilization 60.3%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway




































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	329	111	26	582	67	236	249	40	69	149	115
Future Volume (veh/h)	111	329	111	26	582	67	236	249	40	69	149	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	370	125	29	654	75	265	280	45	78	167	129
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	785	262	53	774	89	309	1190	189	101	531	386
Arrive On Green	0.09	0.30	0.30	0.03	0.24	0.24	0.17	0.39	0.39	0.06	0.27	0.27
Sat Flow, veh/h	1781	2618	872	1781	3213	368	1781	3072	488	1781	1964	1426
Grp Volume(v), veh/h	125	249	246	29	361	368	265	161	164	78	150	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1713	1781	1777	1804	1781	1777	1783	1781	1777	1614
Q Serve(g_s), s	5.5	9.1	9.3	1.3	15.4	15.5	11.5	4.8	5.0	3.4	5.4	5.8
Cycle Q Clear(g_c), s	5.5	9.1	9.3	1.3	15.4	15.5	11.5	4.8	5.0	3.4	5.4	5.8
Prop In Lane	1.00		0.51	1.00		0.20	1.00		0.27	1.00		0.88
Lane Grp Cap(c), veh/h	158	533	514	53	428	434	309	688	690	101	480	436
V/C Ratio(X)	0.79	0.47	0.48	0.55	0.84	0.85	0.86	0.23	0.24	0.77	0.31	0.33
Avail Cap(c_a), veh/h	235	586	565	130	480	488	414	688	690	217	480	436
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(l)	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	35.5	22.7	22.7	38.0	28.8	28.8	31.9	16.4	16.4	37.0	23.1	23.3
Incr Delay (d2), s/veh	10.2	0.6	0.7	8.5	11.9	12.0	12.7	0.8	0.8	11.8	1.7	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	2.8	3.7	3.7	0.7	7.7	7.8	5.9	2.0	2.1	1.8	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	23.3	23.4	46.6	40.7	40.7	44.6	17.2	17.3	48.7	24.8	25.3
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		620			758			590			374	
Approach Delay, s/veh		27.9			40.9			29.5			30.0	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	35.3	6.9	28.3	18.3	26.0	11.6	23.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	30.3	5.8	26.2	18.5	21.5	10.5	21.5				
Max Q Clear Time (g_c+l1), s	5.4	7.0	3.3	11.3	13.5	7.8	7.5	17.5				
Green Ext Time (p_c), s	0.1	1.9	0.0	2.6	0.4	1.4	0.1	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			32.9									
HCM 6th LOS			C									

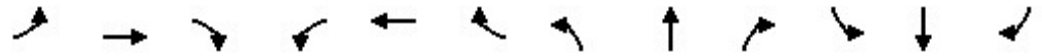
Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	  	 	 	 	 	 	 		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			189			94			272			94
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	91	354	157	156	299	149	184	715	247	228	433	47
Future Volume (vph)	91	354	157	156	299	149	184	715	247	228	433	47
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	110	427	189	188	360	180	222	861	298	275	522	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	427	189	188	360	180	222	861	298	275	522	57
Intersection Summary												

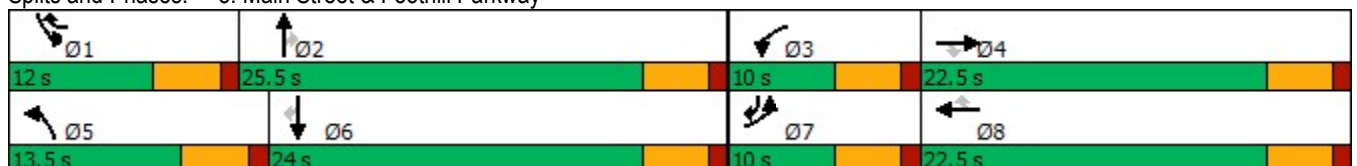
Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	354	157	156	299	149	184	715	247	228	433	47
Future Volume (vph)	91	354	157	156	299	149	184	715	247	228	433	47
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	10.0	22.5	22.5	10.0	22.5	12.0	13.5	25.5	25.5	12.0	24.0	10.0
Total Split (%)	14.3%	32.1%	32.1%	14.3%	32.1%	17.1%	19.3%	36.4%	36.4%	17.1%	34.3%	14.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.5	13.9	13.9	5.5	16.1	28.1	8.4	21.0	21.0	7.5	20.1	30.1
Actuated g/C Ratio	0.08	0.21	0.21	0.08	0.24	0.43	0.13	0.32	0.32	0.11	0.30	0.46
v/c Ratio	0.38	0.57	0.39	0.66	0.42	0.25	0.51	0.76	0.43	0.71	0.48	0.07
Control Delay	33.9	26.4	6.4	43.0	23.4	7.6	31.8	26.5	5.8	40.6	21.4	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	26.4	6.4	43.0	23.4	7.6	31.8	26.5	5.8	40.6	21.4	1.5
LOS	C	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		22.3			24.6			22.9			26.2	
Approach LOS		C			C			C			C	

































Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 66
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 23.9
 Intersection LOS: C
 Intersection Capacity Utilization 55.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 8: Main Street & Foothill Parkway



HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	91	354	157	156	299	149	184	715	247	228	433	47
Future Volume (veh/h)	91	354	157	156	299	149	184	715	247	228	433	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	427	189	188	360	180	222	861	298	275	522	57
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	646	288	283	694	483	330	1200	535	378	1249	665
Arrive On Green	0.07	0.18	0.18	0.08	0.20	0.20	0.10	0.34	0.34	0.11	0.35	0.35
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	110	427	189	188	360	180	222	861	298	275	522	57
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	7.0	6.9	3.3	5.6	5.5	3.9	13.2	9.5	4.8	6.9	1.3
Cycle Q Clear(g_c), s	1.9	7.0	6.9	3.3	5.6	5.5	3.9	13.2	9.5	4.8	6.9	1.3
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	236	646	288	283	694	483	330	1200	535	378	1249	665
V/C Ratio(X)	0.47	0.66	0.66	0.66	0.52	0.37	0.67	0.72	0.56	0.73	0.42	0.09
Avail Cap(c_a), veh/h	306	1028	459	306	1028	632	500	1200	535	417	1249	665
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	27.9	23.7	23.6	27.7	22.4	17.0	27.2	18.0	16.8	26.8	15.3	10.9
Incr Delay (d2), s/veh	1.4	1.2	2.5	4.8	0.6	0.5	2.4	3.7	4.1	5.7	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	0.8	2.8	2.6	1.5	2.3	1.9	1.6	5.5	3.8	2.2	2.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	24.8	26.2	32.6	23.0	17.4	29.6	21.7	21.0	32.5	16.4	11.1
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	B	B
Approach Vol, veh/h		726			728			1381			854	
Approach Delay, s/veh		25.9			24.1			22.8			21.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	25.5	9.6	15.8	10.4	26.4	8.8	16.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	21.0	5.5	18.0	9.0	19.5	5.5	18.0				
Max Q Clear Time (g_c+I1), s	6.8	15.2	5.3	9.0	5.9	8.9	3.9	7.6				
Green Ext Time (p_c), s	0.1	3.3	0.0	2.4	0.2	2.7	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

Lanes and Geometrics
 9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.973				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			182		31				244
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	179	624	87	58	646	84	265	306	68	52	127	215
Future Volume (vph)	179	624	87	58	646	84	265	306	68	52	127	215
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	239	832	116	77	861	112	353	408	91	69	169	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	239	832	116	77	861	112	353	499	0	69	169	287
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway

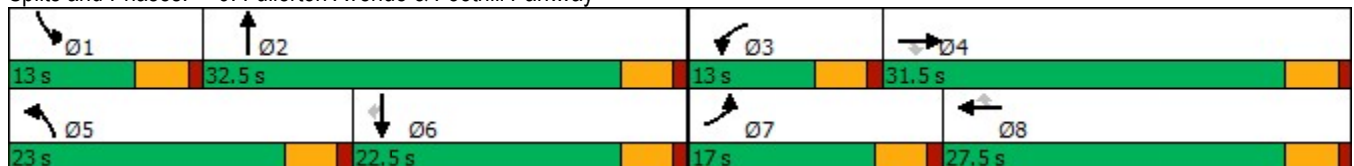


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘	↗	↘
Traffic Volume (vph)	179	624	87	58	646	84	265	306	52	127	215
Future Volume (vph)	179	624	87	58	646	84	265	306	52	127	215
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	17.0	31.5	31.5	13.0	27.5	27.5	23.0	32.5	13.0	22.5	22.5
Total Split (%)	18.9%	35.0%	35.0%	14.4%	30.6%	30.6%	25.6%	36.1%	14.4%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	12.5	29.7	29.7	7.8	23.0	23.0	18.5	30.8	7.7	18.0	18.0
Actuated g/C Ratio	0.14	0.33	0.33	0.09	0.26	0.26	0.21	0.34	0.09	0.20	0.20
v/c Ratio	0.98	0.71	0.18	0.50	0.95	0.21	0.97	0.42	0.46	0.45	0.56
Control Delay	92.6	31.4	1.4	50.7	54.5	1.6	78.4	23.4	48.8	36.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.6	31.4	1.4	50.7	54.5	1.6	78.4	23.4	48.8	36.3	11.6
LOS	F	C	A	D	D	A	E	C	D	D	B
Approach Delay		40.8			48.6			46.2		24.4	
Approach LOS		D			D			D		C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 42.0
 Intersection LOS: D
 Intersection Capacity Utilization 64.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
 9: Fullerton Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	624	87	58	646	84	265	306	68	52	127	215
Future Volume (veh/h)	179	624	87	58	646	84	265	306	68	52	127	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	832	116	77	861	112	353	408	91	69	169	287
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1204	537	99	908	405	366	1029	227	89	374	317
Arrive On Green	0.14	0.34	0.34	0.06	0.26	0.26	0.21	0.36	0.36	0.05	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2893	639	1781	1870	1585
Grp Volume(v), veh/h	239	832	116	77	861	112	353	249	250	69	169	287
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1755	1781	1870	1585
Q Serve(g_s), s	12.0	18.2	4.7	3.8	21.4	5.1	17.7	9.5	9.6	3.4	7.2	15.9
Cycle Q Clear(g_c), s	12.0	18.2	4.7	3.8	21.4	5.1	17.7	9.5	9.6	3.4	7.2	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	247	1204	537	99	908	405	366	632	624	89	374	317
V/C Ratio(X)	0.97	0.69	0.22	0.78	0.95	0.28	0.96	0.39	0.40	0.77	0.45	0.91
Avail Cap(c_a), veh/h	247	1204	537	168	908	405	366	632	624	168	374	317
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	25.7	21.2	41.9	32.9	26.8	35.4	21.7	21.8	42.2	31.7	35.2
Incr Delay (d2), s/veh	47.6	1.7	0.2	12.1	18.5	0.4	37.5	1.8	1.9	13.3	3.9	31.3
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	8.4	7.7	1.7	2.0	11.3	1.9	11.3	4.2	4.2	1.8	3.6	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	27.4	21.4	54.0	51.4	27.2	72.9	23.6	23.7	55.5	35.6	66.5
LnGrp LOS	F	C	C	D	D	C	E	C	C	E	D	E
Approach Vol, veh/h		1187			1050			852			525	
Approach Delay, s/veh		38.6			49.1			44.1			55.1	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	36.5	9.5	35.0	23.0	22.5	17.0	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	28.0	8.5	27.0	18.5	18.0	12.5	23.0				
Max Q Clear Time (g_c+I1), s	5.4	11.6	5.8	20.2	19.7	17.9	14.0	23.4				
Green Ext Time (p_c), s	0.0	2.8	0.0	3.3	0.0	0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			45.3									
HCM 6th LOS			D									

Lanes and Geometrics
 1: Serfas Club Drive & Green River Road

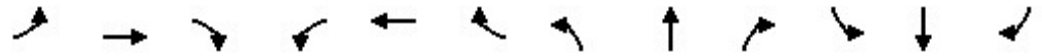


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.968			0.958				0.850
Flt Protected	0.950			0.950				0.995		0.950	0.960	
Satd. Flow (prot)	3433	3536	0	1770	3426	0	0	1776	0	1681	1699	1583
Flt Permitted	0.950			0.950				0.582		0.950	0.960	
Satd. Flow (perm)	3433	3536	0	1770	3426	0	0	1039	0	1681	1699	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					30			9				313
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	183	1313	7	16	408	110	3	16	9	482	46	300
Future Volume (vph)	183	1313	7	16	408	110	3	16	9	482	46	300
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	191	1368	7	17	425	115	3	17	9	502	48	313
Shared Lane Traffic (%)										45%		
Lane Group Flow (vph)	191	1375	0	17	540	0	0	29	0	276	274	313
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

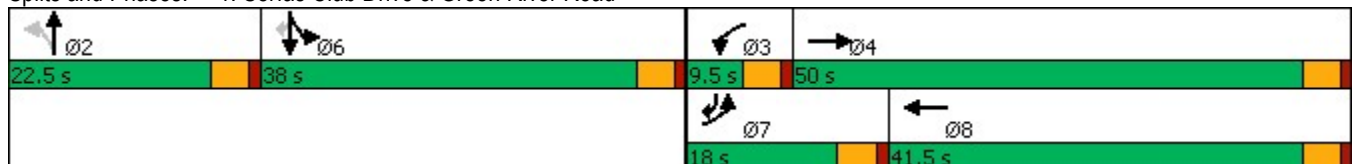


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	183	1313	16	408	3	16	482	46	300
Future Volume (vph)	183	1313	16	408	3	16	482	46	300
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	18.0	50.0	9.5	41.5	22.5	22.5	38.0	38.0	18.0
Total Split (%)	15.0%	41.7%	7.9%	34.6%	18.8%	18.8%	31.7%	31.7%	15.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	10.8	46.0	5.1	34.0		18.2	22.7	22.7	38.1
Actuated g/C Ratio	0.10	0.44	0.05	0.33		0.18	0.22	0.22	0.37
v/c Ratio	0.53	0.88	0.20	0.47		0.15	0.75	0.74	0.40
Control Delay	51.6	36.1	58.2	29.1		34.1	51.6	50.6	4.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	51.6	36.1	58.2	29.1		34.1	51.6	50.6	4.0
LOS	D	D	E	C		C	D	D	A
Approach Delay		38.0		30.0		34.1		34.0	
Approach LOS		D		C		C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 104
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 35.3
 Intersection LOS: D
 Intersection Capacity Utilization 73.2%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	1313	7	16	408	110	3	16	9	482	46	300
Future Volume (veh/h)	183	1313	7	16	408	110	3	16	9	482	46	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	1368	7	17	425	115	3	17	9	536	0	312
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1510	8	33	996	267	32	179	95	779	0	467
Arrive On Green	0.08	0.42	0.42	0.02	0.36	0.36	0.17	0.17	0.17	0.22	0.00	0.22
Sat Flow, veh/h	3456	3625	19	1781	2771	743	182	1033	547	3563	0	1585
Grp Volume(v), veh/h	191	670	705	17	271	269	29	0	0	536	0	312
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1737	1763	0	0	1781	0	1585
Q Serve(g_s), s	5.6	36.8	36.8	1.0	12.0	12.2	1.4	0.0	0.0	14.4	0.0	18.0
Cycle Q Clear(g_c), s	5.6	36.8	36.8	1.0	12.0	12.2	1.4	0.0	0.0	14.4	0.0	18.0
Prop In Lane	1.00		0.01	1.00		0.43	0.10		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	262	740	778	33	639	624	305	0	0	779	0	467
V/C Ratio(X)	0.73	0.91	0.91	0.51	0.42	0.43	0.10	0.00	0.00	0.69	0.00	0.67
Avail Cap(c_a), veh/h	448	777	816	86	639	624	305	0	0	1147	0	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.0	28.4	28.4	50.6	25.2	25.3	36.2	0.0	0.0	37.4	0.0	32.2
Incr Delay (d2), s/veh	3.9	13.8	13.3	11.6	0.4	0.5	0.6	0.0	0.0	1.1	0.0	1.7
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	2.5	17.9	18.7	0.5	5.1	5.1	0.7	0.0	0.0	6.3	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	42.3	41.8	62.2	25.6	25.7	36.8	0.0	0.0	38.5	0.0	33.9
LnGrp LOS	D	D	D	E	C	C	D	A	A	D	A	C
Approach Vol, veh/h		1566			557			29				848
Approach Delay, s/veh		43.1			26.8			36.8				36.8
Approach LOS		D			C			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.4	47.9		27.3	12.4	41.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	45.5		33.5	13.5	37.0				
Max Q Clear Time (g_c+I1), s		3.4	3.0	38.8		20.0	7.6	14.2				
Green Ext Time (p_c), s		0.1	0.0	4.6		2.8	0.3	3.4				

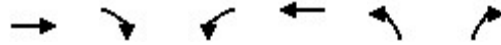
Intersection Summary

HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3518	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3518	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	8					27
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

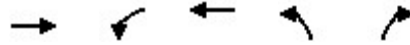
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	1681	74	16	451	34	25
Future Volume (vph)	1681	74	16	451	34	25
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1788	79	17	480	36	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1867	0	17	480	36	27
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↘	↑↑	↘	↗
Traffic Volume (vph)	1681	16	451	34	25
Future Volume (vph)	1681	16	451	34	25
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	57.0	9.6	66.6	23.4	23.4
Total Split (%)	63.3%	10.7%	74.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	50.5	5.1	54.1	19.1	19.1
Actuated g/C Ratio	0.61	0.06	0.66	0.23	0.23
v/c Ratio	0.86	0.15	0.21	0.09	0.07
Control Delay	19.2	42.9	5.6	28.3	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	42.9	5.6	28.3	11.7
LOS	B	D	A	C	B
Approach Delay	19.2		6.9	21.2	
Approach LOS	B		A	C	

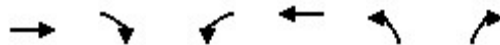
Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 82.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 16.7
 Intersection LOS: B
 Intersection Capacity Utilization 60.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	1681	74	16	451	34	25
Future Volume (veh/h)	1681	74	16	451	34	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1788	79	17	480	36	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2053	90	35	2365	404	359
Arrive On Green	0.59	0.59	0.02	0.67	0.23	0.23
Sat Flow, veh/h	3561	152	1781	3647	1781	1585
Grp Volume(v), veh/h	911	956	17	480	36	27
Grp Sat Flow(s),veh/h/ln	1777	1843	1781	1777	1781	1585
Q Serve(g_s), s	35.8	36.7	0.8	4.4	1.3	1.1
Cycle Q Clear(g_c), s	35.8	36.7	0.8	4.4	1.3	1.1
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1052	1091	35	2365	404	359
V/C Ratio(X)	0.87	0.88	0.49	0.20	0.09	0.08
Avail Cap(c_a), veh/h	1118	1160	109	2646	404	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	14.4	40.5	5.4	25.5	25.4
Incr Delay (d2), s/veh	7.0	7.5	10.2	0.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	15.3	0.4	1.4	0.6	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.2	21.9	50.7	5.4	25.9	25.8
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	1867			497	63	
Approach Delay, s/veh	21.6			7.0	25.9	
Approach LOS	C			A	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.4	6.1	53.9		60.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.9	5.1	52.5		62.1
Max Q Clear Time (g_c+l1), s		3.3	2.8	38.7		6.4
Green Ext Time (p_c), s		0.1	0.0	10.7		3.7
Intersection Summary						
HCM 6th Ctrl Delay			18.7			
HCM 6th LOS			B			

Lanes and Geometrics

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



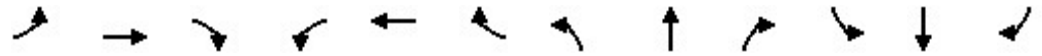
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.995			0.958				0.965
Flt Protected	0.950			0.950				0.967				0.964
Satd. Flow (prot)	1770	3536	0	1770	3522	0	0	1726	0	0	1733	0
Flt Permitted	0.950			0.950				0.886				0.860
Satd. Flow (perm)	1770	3536	0	1770	3522	0	0	1581	0	0	1546	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			7			73				73
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

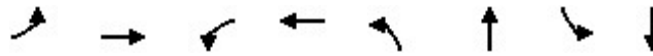
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	1708	8	4	456	16	9	0	4	16	0	6
Future Volume (vph)	10	1708	8	4	456	16	9	0	4	16	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	1779	8	4	475	17	9	0	4	17	0	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	1787	0	4	492	0	0	13	0	0	23	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷		↷		↷
Traffic Volume (vph)	10	1708	4	456	9	0	16	0
Future Volume (vph)	10	1708	4	456	9	0	16	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	56.8	10.4	57.6	22.8	22.8	22.8	22.8
Total Split (%)	10.7%	63.1%	11.6%	64.0%	25.3%	25.3%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	48.4	5.7	48.5		18.5		18.5
Actuated g/C Ratio	0.07	0.62	0.07	0.62		0.24		0.24
v/c Ratio	0.09	0.81	0.03	0.22		0.03		0.05
Control Delay	39.7	15.6	37.8	6.8		0.2		0.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	39.7	15.6	37.8	6.8		0.2		0.2
LOS	D	B	D	A		A		A
Approach Delay		15.7		7.1		0.2		0.2
Approach LOS		B		A		A		A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 77.8
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 59.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

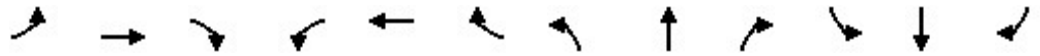


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1708	8	4	456	16	9	0	4	16	0	6
Future Volume (veh/h)	10	1708	8	4	456	16	9	0	4	16	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	1779	8	4	475	17	9	0	4	17	0	6
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	2139	10	9	2038	73	302	14	106	321	12	89
Arrive On Green	0.01	0.59	0.59	0.01	0.58	0.58	0.23	0.00	0.23	0.23	0.00	0.23
Sat Flow, veh/h	1781	3628	16	1781	3500	125	961	60	454	1033	51	383
Grp Volume(v), veh/h	10	871	916	4	241	251	13	0	0	23	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1848	1475	0	0	1467	0	0
Q Serve(g_s), s	0.4	31.0	31.0	0.2	5.1	5.2	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.4	31.0	31.0	0.2	5.1	5.2	0.4	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.07	0.69		0.31	0.74		0.26
Lane Grp Cap(c), veh/h	22	1048	1101	9	1035	1076	421	0	0	422	0	0
V/C Ratio(X)	0.45	0.83	0.83	0.42	0.23	0.23	0.03	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	116	1184	1244	134	1202	1250	421	0	0	422	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(l)	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	38.5	13.0	13.0	38.9	7.9	7.9	23.3	0.0	0.0	23.4	0.0	0.0
Incr Delay (d2), s/veh	13.6	4.7	4.5	27.1	0.1	0.1	0.1	0.0	0.0	0.2	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	0.3	11.7	12.3	0.1	1.8	1.8	0.2	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	17.6	17.5	66.1	8.0	8.0	23.4	0.0	0.0	23.6	0.0	0.0
LnGrp LOS	D	B	B	E	A	A	C	A	A	C	A	A
Approach Vol, veh/h		1797			496			13			23	
Approach Delay, s/veh		17.7			8.5			23.4			23.6	
Approach LOS		B			A			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	4.9	50.8		22.8	5.5	50.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.3	5.9	52.3		18.3	5.1	53.1				
Max Q Clear Time (g_c+I1), s		2.4	2.2	33.0		2.8	2.4	7.2				
Green Ext Time (p_c), s		0.0	0.0	13.3		0.0	0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									

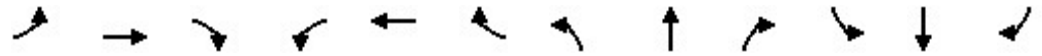
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.850	0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						136					629	629
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

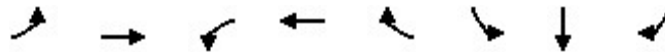
Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	143	1548	2	1	326	20	0	0	0	45	0	135
Future Volume (vph)	143	1548	2	1	326	20	0	0	0	45	0	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	147	1596	2	1	336	21	0	0	0	46	0	139
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	147	1598	0	1	336	21	0	0	0	46	70	69
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

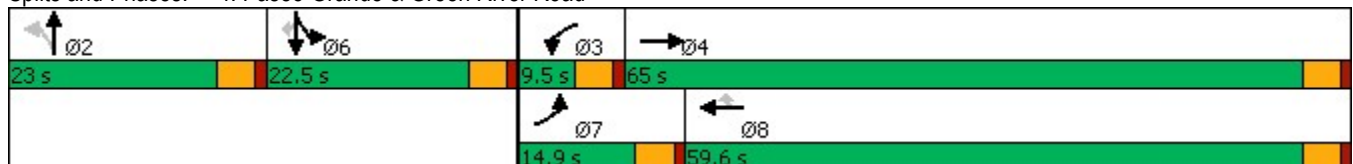


Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations	↖ ↗	↖ ↗	↖	↖ ↗	↖	↖	↖	↖	
Traffic Volume (vph)	143	1548	1	326	20	45	0	135	
Future Volume (vph)	143	1548	1	326	20	45	0	135	
Turn Type	Prot	NA	Prot	NA	Perm	Split	NA	Perm	
Protected Phases	7	4	3	8		6	6		2
Permitted Phases					8				6
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	14.9	65.0	9.5	59.6	59.6	22.5	22.5	22.5	23.0
Total Split (%)	12.4%	54.2%	7.9%	49.7%	49.7%	18.8%	18.8%	18.8%	19%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	9.4	56.9	5.0	44.8	44.8	18.1	18.1	18.1	
Actuated g/C Ratio	0.09	0.52	0.05	0.41	0.41	0.17	0.17	0.17	
v/c Ratio	0.50	0.86	0.01	0.23	0.03	0.16	0.09	0.09	
Control Delay	54.9	28.9	54.0	21.1	0.1	43.2	0.2	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.9	28.9	54.0	21.1	0.1	43.2	0.2	0.2	
LOS	D	C	D	C	A	D	A	A	
Approach Delay		31.1		19.9			10.9		
Approach LOS		C		B			B		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 108.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 27.7
 Intersection LOS: C
 Intersection Capacity Utilization 62.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↕	↔		↕↔		↔	↕↔	↔
Traffic Volume (veh/h)	143	1548	2	1	326	20	0	0	0	45	0	135
Future Volume (veh/h)	143	1548	2	1	326	20	0	0	0	45	0	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	1596	2	1	336	21	0	0	0	46	0	139
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	1824	2	2	1569	700	0	316	0	293	0	521
Arrive On Green	0.06	0.50	0.50	0.00	0.44	0.44	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	3456	3642	5	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	147	779	819	1	336	21	0	0	0	46	0	139
Grp Sat Flow(s),veh/h/ln	1728	1777	1870	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	4.6	42.6	42.6	0.1	6.4	0.8	0.0	0.0	0.0	2.4	0.0	4.2
Cycle Q Clear(g_c), s	4.6	42.6	42.6	0.1	6.4	0.8	0.0	0.0	0.0	2.4	0.0	4.2
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	890	936	2	1569	700	0	316	0	293	0	521
V/C Ratio(X)	0.70	0.87	0.88	0.41	0.21	0.03	0.00	0.00	0.00	0.16	0.00	0.27
Avail Cap(c_a), veh/h	328	982	1033	81	1788	798	0	316	0	293	0	521
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	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	24.3	24.3	54.6	18.8	17.3	0.0	0.0	0.0	39.2	0.0	40.0
Incr Delay (d2), s/veh	4.2	8.3	8.0	84.3	0.1	0.0	0.0	0.0	0.0	1.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	19.1	20.0	0.1	2.6	0.3	0.0	0.0	0.0	1.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	32.6	32.2	138.9	18.9	17.3	0.0	0.0	0.0	40.4	0.0	41.2
LnGrp LOS	D	C	C	F	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1745			358			0				185
Approach Delay, s/veh		34.3			19.2			0.0				41.0
Approach LOS		C			B							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	4.6	59.3		22.5	11.1	52.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	60.5		18.0	10.4	55.1				
Max Q Clear Time (g_c+I1), s		0.0	2.1	44.6		6.2	6.6	8.4				
Green Ext Time (p_c), s		0.0	0.0	10.2		0.5	0.1	2.5				

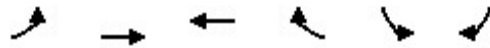
Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue

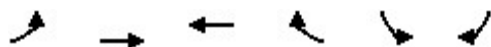


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.992			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3511	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3511	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			11			19
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

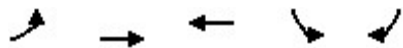
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	35	1510	335	19	16	19
Future Volume (vph)	35	1510	335	19	16	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	36	1541	342	19	16	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	1541	361	0	16	19
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

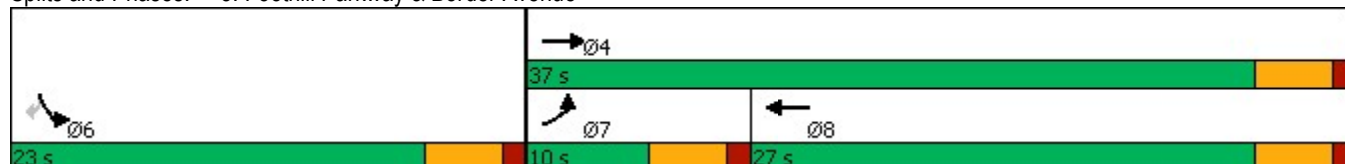


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	35	1510	335	16	19
Future Volume (vph)	35	1510	335	16	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	37.0	27.0	23.0	23.0
Total Split (%)	16.7%	61.7%	45.0%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effect Green (s)	5.5	31.1	27.2	18.5	18.5
Actuated g/C Ratio	0.09	0.53	0.46	0.32	0.32
v/c Ratio	0.22	0.82	0.22	0.03	0.04
Control Delay	28.7	16.0	10.7	14.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	16.0	10.7	14.8	7.6
LOS	C	B	B	B	A
Approach Delay		16.3	10.7	10.9	
Approach LOS		B	B	B	

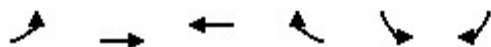
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 58.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.2
 Intersection LOS: B
 Intersection Capacity Utilization 53.4%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue



HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	35	1510	335	19	16	19	
Future Volume (veh/h)	35	1510	335	19	16	19	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	36	1541	342	19	16	19	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	68	1851	1385	77	574	511	
Arrive On Green	0.04	0.52	0.40	0.40	0.32	0.32	
Sat Flow, veh/h	1781	3647	3517	189	1781	1585	
Grp Volume(v), veh/h	36	1541	177	184	16	19	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1836	1781	1585	
Q Serve(g_s), s	1.1	21.1	3.8	3.8	0.4	0.5	
Cycle Q Clear(g_c), s	1.1	21.1	3.8	3.8	0.4	0.5	
Prop In Lane	1.00			0.10	1.00	1.00	
Lane Grp Cap(c), veh/h	68	1851	719	743	574	511	
V/C Ratio(X)	0.53	0.83	0.25	0.25	0.03	0.04	
Avail Cap(c_a), veh/h	171	2012	719	743	574	511	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	27.1	11.6	11.3	11.3	13.3	13.3	
Incr Delay (d2), s/veh	6.3	2.9	0.2	0.2	0.1	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	7.2	1.3	1.4	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.4	14.6	11.5	11.5	13.4	13.5	
LnGrp LOS	C	B	B	B	B	B	
Approach Vol, veh/h		1577	361		35		
Approach Delay, s/veh		15.0	11.5		13.4		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				34.4	23.0	6.7	27.7
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.5	18.5	5.5	22.5
Max Q Clear Time (g_c+I1), s				23.1	2.5	3.1	5.8
Green Ext Time (p_c), s				6.9	0.0	0.0	1.9
Intersection Summary							
HCM 6th Ctrl Delay			14.3				
HCM 6th LOS			B				

Lanes and Geometrics
6: Chase Drive & Foothill Parkway

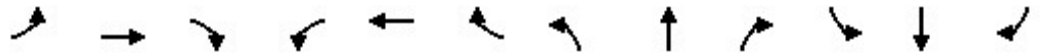


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.997			0.919				0.850
Flt Protected	0.950			0.950				0.980		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	0	1678	0	1770	1583	0
Flt Permitted	0.950			0.950				0.131		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3529	0	0	224	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		2			136				583
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

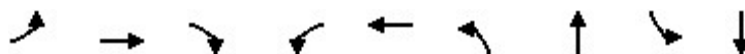
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	92	1369	61	93	285	7	49	0	73	6	0	45
Future Volume (vph)	92	1369	61	93	285	7	49	0	73	6	0	45
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	98	1456	65	99	303	7	52	0	78	6	0	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	1456	65	99	310	0	0	130	0	6	48	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

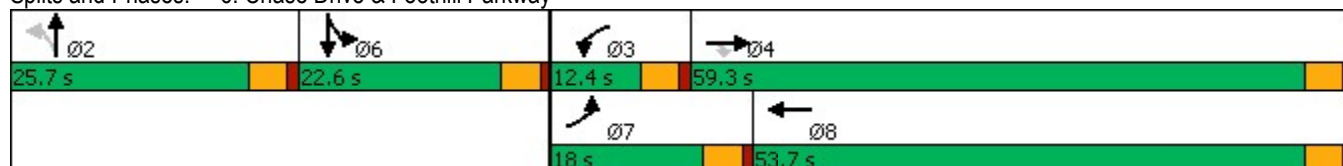


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗		↕	↖	↗
Traffic Volume (vph)	92	1369	61	93	285	49	0	6	0
Future Volume (vph)	92	1369	61	93	285	49	0	6	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Split	NA
Protected Phases	7	4		3	8		2	6	6
Permitted Phases			4			2			
Detector Phase	7	4	4	3	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	18.0	59.3	59.3	12.4	53.7	25.7	25.7	22.6	22.6
Total Split (%)	15.0%	49.4%	49.4%	10.3%	44.8%	21.4%	21.4%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	10.7	51.2	51.2	7.9	48.4		21.3	6.0	6.0
Actuated g/C Ratio	0.10	0.49	0.49	0.08	0.46		0.20	0.06	0.06
v/c Ratio	0.54	0.84	0.08	0.74	0.19		0.84	0.06	0.07
Control Delay	56.3	28.3	1.4	80.2	17.0		49.7	49.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	56.3	28.3	1.4	80.2	17.0		49.7	49.5	0.2
LOS	E	C	A	F	B		D	D	A
Approach Delay		28.9			32.3		49.7		5.7
Approach LOS		C			C		D		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 104.4
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 30.2
 Intersection LOS: C
 Intersection Capacity Utilization 68.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	1369	61	93	285	7	49	0	73	6	0	45
Future Volume (veh/h)	92	1369	61	93	285	7	49	0	73	6	0	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	1456	65	99	303	7	52	0	78	6	0	48
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	1876	837	127	1874	43	72	0	107	113	0	101
Arrive On Green	0.07	0.53	0.53	0.07	0.53	0.53	0.11	0.00	0.11	0.06	0.00	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3551	82	663	0	995	1781	0	1585
Grp Volume(v), veh/h	98	1456	65	99	151	159	130	0	0	6	0	48
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1856	1658	0	0	1781	0	1585
Q Serve(g_s), s	4.2	25.7	1.6	4.3	3.5	3.5	6.0	0.0	0.0	0.2	0.0	2.3
Cycle Q Clear(g_c), s	4.2	25.7	1.6	4.3	3.5	3.5	6.0	0.0	0.0	0.2	0.0	2.3
Prop In Lane	1.00		1.00	1.00		0.04	0.40		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	127	1876	837	127	938	979	179	0	0	113	0	101
V/C Ratio(X)	0.77	0.78	0.08	0.78	0.16	0.16	0.73	0.00	0.00	0.05	0.00	0.48
Avail Cap(c_a), veh/h	306	2480	1106	179	1113	1163	448	0	0	411	0	365
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	14.8	9.1	35.9	9.6	9.6	33.9	0.0	0.0	34.5	0.0	35.5
Incr Delay (d2), s/veh	9.4	1.2	0.0	13.3	0.1	0.1	5.5	0.0	0.0	0.2	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	9.4	0.5	2.3	1.2	1.3	2.6	0.0	0.0	0.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	16.0	9.2	49.1	9.7	9.7	39.4	0.0	0.0	34.7	0.0	38.9
LnGrp LOS	D	B	A	D	A	A	D	A	A	C	A	D
Approach Vol, veh/h		1619			409			130				54
Approach Delay, s/veh		17.5			19.2			39.4				38.5
Approach LOS		B			B			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	10.1	46.0		9.5	10.1	45.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.2	7.9	54.8		18.1	13.5	49.2				
Max Q Clear Time (g_c+I1), s		8.0	6.3	27.7		4.3	6.2	5.5				
Green Ext Time (p_c), s		0.5	0.0	13.7		0.1	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

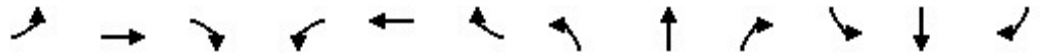


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.955			0.984			0.972			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3380	0	1770	3483	0	1770	3440	0	1770	3405	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3380	0	1770	3483	0	1770	3440	0	1770	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		96			16			21			48	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	112	980	418	14	281	34	103	89	20	97	265	91
Future Volume (vph)	112	980	418	14	281	34	103	89	20	97	265	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	115	1010	431	14	290	35	106	92	21	100	273	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1441	0	14	325	0	106	113	0	100	367	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

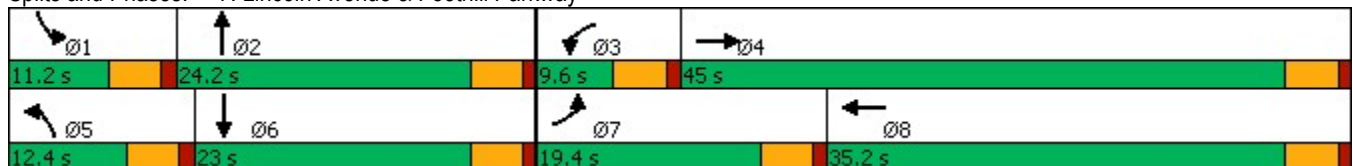


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↕	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	112	980	14	281	103	89	97	265
Future Volume (vph)	112	980	14	281	103	89	97	265
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	19.4	45.0	9.6	35.2	12.4	24.2	11.2	23.0
Total Split (%)	21.6%	50.0%	10.7%	39.1%	13.8%	26.9%	12.4%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	10.5	39.1	5.1	28.3	7.7	19.8	6.7	21.3
Actuated g/C Ratio	0.13	0.48	0.06	0.35	0.10	0.24	0.08	0.26
v/c Ratio	0.50	0.86	0.12	0.26	0.63	0.13	0.68	0.39
Control Delay	41.1	24.1	40.7	19.9	54.9	21.3	62.4	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	24.1	40.7	19.9	54.9	21.3	62.4	24.8
LOS	D	C	D	B	D	C	E	C
Approach Delay		25.4		20.7		37.6		32.9
Approach LOS		C		C		D		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 80.9
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 27.1
 Intersection LOS: C
 Intersection Capacity Utilization 75.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	
Traffic Volume (veh/h)	112	980	418	14	281	34	103	89	20	97	265	91
Future Volume (veh/h)	112	980	418	14	281	34	103	89	20	97	265	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1010	431	14	290	35	106	92	21	100	273	94
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1131	475	30	1270	152	135	677	150	127	601	202
Arrive On Green	0.08	0.46	0.46	0.02	0.40	0.40	0.08	0.23	0.23	0.07	0.23	0.23
Sat Flow, veh/h	1781	2439	1024	1781	3196	382	1781	2891	640	1781	2610	879
Grp Volume(v), veh/h	115	731	710	14	160	165	106	55	58	100	184	183
Grp Sat Flow(s),veh/h/ln	1781	1777	1686	1781	1777	1802	1781	1777	1755	1781	1777	1712
Q Serve(g_s), s	5.3	31.5	32.8	0.7	5.0	5.1	4.9	2.1	2.2	4.6	7.5	7.8
Cycle Q Clear(g_c), s	5.3	31.5	32.8	0.7	5.0	5.1	4.9	2.1	2.2	4.6	7.5	7.8
Prop In Lane	1.00		0.61	1.00		0.21	1.00		0.36	1.00		0.51
Lane Grp Cap(c), veh/h	147	824	782	30	706	716	135	416	411	127	409	394
V/C Ratio(X)	0.78	0.89	0.91	0.47	0.23	0.23	0.79	0.13	0.14	0.79	0.45	0.46
Avail Cap(c_a), veh/h	316	856	812	108	706	716	167	416	411	142	409	394
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	37.8	20.5	20.9	41.0	16.8	16.8	38.2	25.4	25.5	38.4	27.8	27.9
Incr Delay (d2), s/veh	8.6	10.9	13.7	11.3	0.2	0.2	17.7	0.7	0.7	22.6	3.5	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	2.6	14.5	14.8	0.4	2.0	2.1	2.8	0.9	1.0	2.8	3.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	31.5	34.6	52.3	16.9	17.0	55.9	26.1	26.2	61.0	31.3	31.8
LnGrp LOS	D	C	C	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		1556			339			219			467	
Approach Delay, s/veh		34.0			18.4			40.6			37.9	
Approach LOS		C			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	24.2	5.9	43.5	10.9	23.8	11.5	37.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.7	19.7	5.1	40.5	7.9	18.5	14.9	30.7				
Max Q Clear Time (g_c+I1), s	6.6	4.2	2.7	34.8	6.9	9.8	7.3	7.1				
Green Ext Time (p_c), s	0.0	0.4	0.0	4.2	0.0	1.4	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				33.2								
HCM 6th LOS				C								

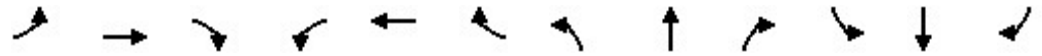
Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			146			205			82
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	28	199	57	297	383	140	105	256	86	205	1130	47
Future Volume (vph)	28	199	57	297	383	140	105	256	86	205	1130	47
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	207	59	309	399	146	109	267	90	214	1177	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	207	59	309	399	146	109	267	90	214	1177	49
Intersection Summary												

Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	199	57	297	383	140	105	256	86	205	1130	47
Future Volume (vph)	28	199	57	297	383	140	105	256	86	205	1130	47
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	9.6	22.5	22.5	13.1	26.0	14.3	9.5	30.1	30.1	14.3	34.9	9.6
Total Split (%)	12.0%	28.1%	28.1%	16.4%	32.5%	17.9%	11.9%	37.6%	37.6%	17.9%	43.6%	12.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.1	10.3	10.3	8.6	17.9	31.3	5.0	25.9	25.9	9.0	32.0	41.6
Actuated g/C Ratio	0.07	0.14	0.14	0.12	0.25	0.44	0.07	0.36	0.36	0.13	0.45	0.58
v/c Ratio	0.12	0.41	0.15	0.75	0.45	0.19	0.46	0.21	0.13	0.50	0.75	0.05
Control Delay	34.0	30.4	0.8	44.8	26.0	3.4	39.8	17.2	0.4	34.2	21.9	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.4	0.8	44.8	26.0	3.4	39.8	17.2	0.4	34.2	21.9	1.1
LOS	C	C	A	D	C	A	D	B	A	C	C	A
Approach Delay		24.8			28.9			19.2			23.0	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 71.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 24.3

Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

































Splits and Phases: 8: Main Street & Foothill Parkway



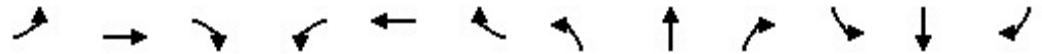
HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

Skyline Village Commercial Center TIA

04/22/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	28	199	57	297	383	140	105	256	86	205	1130	47
Future Volume (veh/h)	28	199	57	297	383	140	105	256	86	205	1130	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	207	59	309	399	146	109	267	90	214	1177	49
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	361	161	405	668	443	223	1504	671	316	1600	763
Arrive On Green	0.03	0.10	0.10	0.12	0.19	0.19	0.06	0.42	0.42	0.09	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	29	207	59	309	399	146	109	267	90	214	1177	49
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.6	3.8	2.3	5.9	6.9	4.9	2.1	3.2	2.3	4.1	18.4	1.1
Cycle Q Clear(g_c), s	0.6	3.8	2.3	5.9	6.9	4.9	2.1	3.2	2.3	4.1	18.4	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	361	161	405	668	443	223	1504	671	316	1600	763
V/C Ratio(X)	0.27	0.57	0.37	0.76	0.60	0.33	0.49	0.18	0.13	0.68	0.74	0.06
Avail Cap(c_a), veh/h	261	947	422	440	1131	650	256	1504	671	501	1600	763
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(l)	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	32.0	28.9	28.3	28.9	25.1	19.3	30.5	12.2	11.9	29.7	15.3	9.4
Incr Delay (d2), s/veh	1.3	1.4	1.4	7.1	0.9	0.4	1.7	0.3	0.4	2.5	3.1	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	0.2	1.6	0.9	2.7	2.9	1.8	0.9	1.2	0.8	1.7	7.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	30.4	29.7	36.0	26.0	19.8	32.2	12.4	12.3	32.3	18.3	9.5
LnGrp LOS	C	C	C	D	C	B	C	B	B	C	B	A
Approach Vol, veh/h		295			854			466			1440	
Approach Delay, s/veh		30.5			28.5			17.0			20.1	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	33.1	12.4	11.4	8.9	34.9	6.6	17.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	25.6	8.6	18.0	5.0	30.4	5.1	21.5				
Max Q Clear Time (g_c+I1), s	6.1	5.2	7.9	5.8	4.1	20.4	2.6	8.9				
Green Ext Time (p_c), s	0.2	1.9	0.1	1.1	0.0	5.8	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				23.0								
HCM 6th LOS				C								

Lanes and Geometrics
 9: Fullerton Avenue & Foothill Parkway

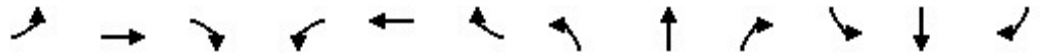


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.961				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			205			46			205
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	99	1192	127	44	381	33	38	127	45	117	231	57
Future Volume (vph)	99	1192	127	44	381	33	38	127	45	117	231	57
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	102	1229	131	45	393	34	39	131	46	121	238	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1229	131	45	393	34	39	177	0	121	238	59
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↑↑	↙	↑	↗
Traffic Volume (vph)	99	1192	127	44	381	33	38	127	117	231	57
Future Volume (vph)	99	1192	127	44	381	33	38	127	117	231	57
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	14.8	36.0	36.0	9.5	30.7	30.7	10.6	23.4	11.1	23.9	23.9
Total Split (%)	18.5%	45.0%	45.0%	11.9%	38.4%	38.4%	13.3%	29.3%	13.9%	29.9%	29.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.8	30.3	30.3	5.0	24.7	24.7	6.0	19.0	6.6	24.3	24.3
Actuated g/C Ratio	0.12	0.40	0.40	0.07	0.33	0.33	0.08	0.25	0.09	0.32	0.32
v/c Ratio	0.49	0.86	0.18	0.38	0.34	0.05	0.28	0.20	0.77	0.39	0.09
Control Delay	40.7	28.8	3.3	45.3	20.7	0.2	39.9	18.2	68.8	25.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	28.8	3.3	45.3	20.7	0.2	39.9	18.2	68.8	25.8	0.3
LOS	D	C	A	D	C	A	D	B	E	C	A
Approach Delay		27.3			21.6			22.1		34.7	
Approach LOS		C			C			C		C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 74.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 27.0

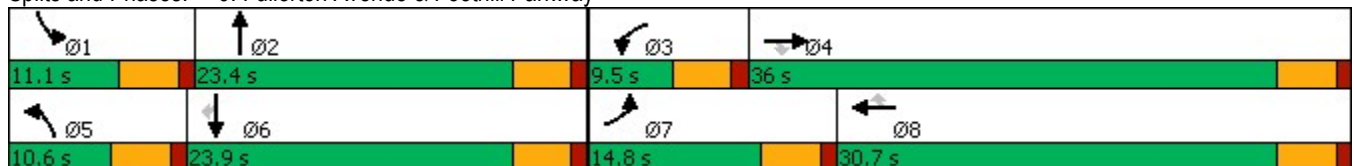
Intersection LOS: C

Intersection Capacity Utilization 68.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway

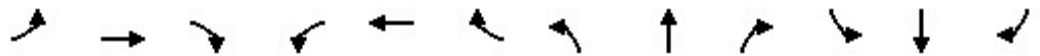


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1192	127	44	381	33	38	127	45	117	231	57
Future Volume (veh/h)	99	1192	127	44	381	33	38	127	45	117	231	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	1229	131	45	393	34	39	131	46	121	238	59
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	1394	622	72	1275	569	66	644	217	153	553	469
Arrive On Green	0.07	0.39	0.39	0.04	0.36	0.36	0.04	0.25	0.25	0.09	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2608	880	1781	1870	1585
Grp Volume(v), veh/h	102	1229	131	45	393	34	39	88	89	121	238	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1712	1781	1870	1585
Q Serve(g_s), s	4.3	24.6	4.2	1.9	6.1	1.1	1.7	3.0	3.2	5.1	7.9	2.1
Cycle Q Clear(g_c), s	4.3	24.6	4.2	1.9	6.1	1.1	1.7	3.0	3.2	5.1	7.9	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	131	1394	622	72	1275	569	66	438	422	153	553	469
V/C Ratio(X)	0.78	0.88	0.21	0.63	0.31	0.06	0.59	0.20	0.21	0.79	0.43	0.13
Avail Cap(c_a), veh/h	240	1461	652	116	1275	569	142	438	422	153	553	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(l)	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	34.9	21.6	15.4	36.2	17.7	16.1	36.3	22.9	22.9	34.4	21.8	19.7
Incr Delay (d2), s/veh	9.4	6.4	0.2	8.7	0.1	0.0	8.3	1.0	1.1	24.0	2.4	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	2.2	10.7	1.5	1.0	2.4	0.4	0.9	1.3	1.4	3.2	3.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	28.0	15.6	44.9	17.8	16.1	44.7	23.9	24.1	58.3	24.2	20.3
LnGrp LOS	D	C	B	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1462			472			216			418	
Approach Delay, s/veh		28.1			20.3			27.7			33.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	23.4	7.6	34.6	7.3	27.1	10.2	32.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	18.9	5.0	31.5	6.1	19.4	10.3	26.2				
Max Q Clear Time (g_c+I1), s	7.1	5.2	3.9	26.6	3.7	9.9	6.3	8.1				
Green Ext Time (p_c), s	0.0	0.7	0.0	3.5	0.0	1.0	0.1	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								

Appendix D

Project Opening Year (2022) with Background Traffic Conditions
Intersection Analysis Worksheets

Lanes and Geometrics
1: Serfas Club Drive & Green River Road

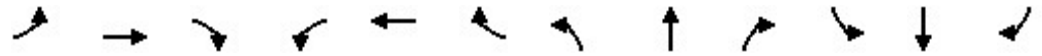


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.961			0.946				0.850
Flt Protected	0.950			0.950				0.999		0.950	0.963	
Satd. Flow (prot)	3433	3536	0	1770	3401	0	0	1760	0	1681	1704	1583
Flt Permitted	0.950			0.950				0.654		0.950	0.963	
Satd. Flow (perm)	3433	3536	0	1770	3401	0	0	1152	0	1681	1704	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			51			22				130
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	293	490	3	16	1161	403	1	40	27	47	6	114
Future Volume (vph)	293	490	3	16	1161	403	1	40	27	47	6	114
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	333	557	3	18	1319	458	1	45	31	53	7	130
Shared Lane Traffic (%)										44%		
Lane Group Flow (vph)	333	560	0	18	1777	0	0	77	0	30	30	130
Intersection Summary												

Timings
1: Serfas Club Drive & Green River Road

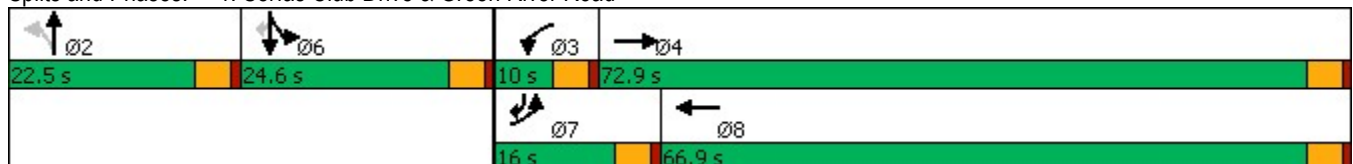


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖↗	↕	↖	↕		↕	↖	↕	↗
Traffic Volume (vph)	293	490	16	1161	1	40	47	6	114
Future Volume (vph)	293	490	16	1161	1	40	47	6	114
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	16.0	72.9	10.0	66.9	22.5	22.5	24.6	24.6	16.0
Total Split (%)	12.3%	56.1%	7.7%	51.5%	17.3%	17.3%	18.9%	18.9%	12.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	11.5	74.7	5.5	62.5		18.0	7.6	7.6	21.4
Actuated g/C Ratio	0.10	0.65	0.05	0.54		0.16	0.07	0.07	0.19
v/c Ratio	0.97	0.24	0.21	0.95		0.39	0.27	0.27	0.33
Control Delay	95.3	10.1	60.9	38.0		39.9	58.5	58.2	8.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	95.3	10.1	60.9	38.0		39.9	58.5	58.2	8.9
LOS	F	B	E	D		D	E	E	A
Approach Delay		41.9		38.2		39.9		24.5	
Approach LOS		D		D		D		C	

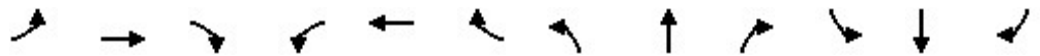
Intersection Summary

Cycle Length: 130	
Actuated Cycle Length: 115.5	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	490	3	16	1161	403	1	40	27	47	6	114
Future Volume (veh/h)	293	490	3	16	1161	403	1	40	27	47	6	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	557	3	18	1319	458	1	45	31	58	0	130
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	2145	12	33	1349	450	3	151	104	328	0	297
Arrive On Green	0.10	0.59	0.59	0.02	0.52	0.52	0.15	0.15	0.15	0.09	0.00	0.09
Sat Flow, veh/h	3456	3624	20	1781	2617	873	23	1019	702	3563	0	1585
Grp Volume(v), veh/h	333	273	287	18	878	899	77	0	0	58	0	130
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1713	1743	0	0	1781	0	1585
Q Serve(g_s), s	11.5	9.0	9.0	1.2	57.3	62.4	4.8	0.0	0.0	1.8	0.0	8.8
Cycle Q Clear(g_c), s	11.5	9.0	9.0	1.2	57.3	62.4	4.8	0.0	0.0	1.8	0.0	8.8
Prop In Lane	1.00		0.01	1.00		0.51	0.01		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	328	1051	1105	33	916	883	259	0	0	328	0	297
V/C Ratio(X)	1.01	0.26	0.26	0.54	0.96	1.02	0.30	0.00	0.00	0.18	0.00	0.44
Avail Cap(c_a), veh/h	328	1051	1105	81	916	883	259	0	0	592	0	414
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	1.00
Uniform Delay (d), s/veh	54.8	11.9	11.9	58.9	28.1	29.3	45.9	0.0	0.0	50.7	0.0	43.6
Incr Delay (d2), s/veh	53.4	0.1	0.1	12.8	20.4	34.7	2.9	0.0	0.0	0.3	0.0	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	7.4	3.5	3.7	0.7	28.5	33.0	2.3	0.0	0.0	0.8	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.1	12.0	12.0	71.7	48.5	64.1	48.8	0.0	0.0	51.0	0.0	44.6
LnGrp LOS	F	B	B	E	D	F	D	A	A	D	A	D
Approach Vol, veh/h		893			1795			77				188
Approach Delay, s/veh		47.9			56.5			48.8				46.6
Approach LOS		D			E			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.8	76.1		15.6	16.0	66.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.5	68.4		20.1	11.5	62.4				
Max Q Clear Time (g_c+I1), s		6.8	3.2	11.0		10.8	13.5	64.4				
Green Ext Time (p_c), s		0.2	0.0	3.8		0.4	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	53.1
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road

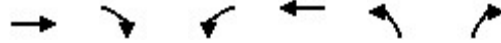


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3511	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3511	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					47
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

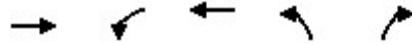
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	509	28	19	1439	96	41
Future Volume (vph)	509	28	19	1439	96	41
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	578	32	22	1635	109	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	610	0	22	1635	109	47
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road

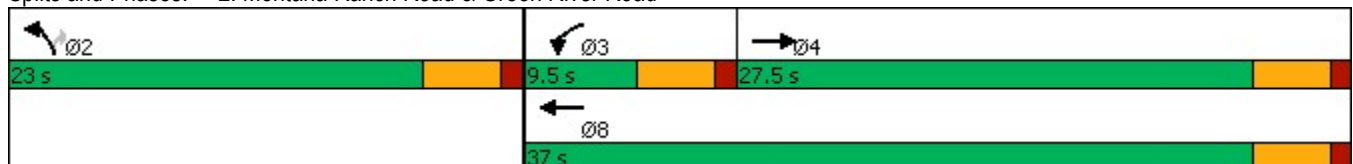


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	509	19	1439	96	41
Future Volume (vph)	509	19	1439	96	41
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	27.5	9.5	37.0	23.0	23.0
Total Split (%)	45.8%	15.8%	61.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	30.0	5.0	31.9	18.5	18.5
Actuated g/C Ratio	0.51	0.08	0.54	0.31	0.31
v/c Ratio	0.34	0.15	0.86	0.20	0.09
Control Delay	10.0	28.1	18.2	16.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	28.1	18.2	16.5	5.9
LOS	B	C	B	B	A
Approach Delay	10.0		18.3	13.3	
Approach LOS	B		B	B	

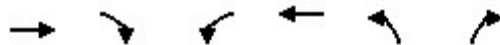
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 59.4
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 15.9
 Intersection LOS: B
 Intersection Capacity Utilization 52.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙	↗
Traffic Volume (veh/h)	509	28	19	1439	96	41
Future Volume (veh/h)	509	28	19	1439	96	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	578	32	22	1635	109	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1463	81	46	1883	563	501
Arrive On Green	0.43	0.43	0.03	0.53	0.32	0.32
Sat Flow, veh/h	3517	189	1781	3647	1781	1585
Grp Volume(v), veh/h	300	310	22	1635	109	47
Grp Sat Flow(s),veh/h/ln	1777	1836	1781	1777	1781	1585
Q Serve(g_s), s	6.8	6.8	0.7	23.4	2.6	1.2
Cycle Q Clear(g_c), s	6.8	6.8	0.7	23.4	2.6	1.2
Prop In Lane		0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	759	785	46	1883	563	501
V/C Ratio(X)	0.39	0.40	0.48	0.87	0.19	0.09
Avail Cap(c_a), veh/h	759	785	152	1974	563	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	11.5	28.1	12.0	14.6	14.1
Incr Delay (d2), s/veh	0.3	0.3	7.6	4.3	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.5	0.4	8.3	1.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	11.9	35.7	16.3	15.3	14.5
LnGrp LOS	B	B	D	B	B	B
Approach Vol, veh/h				1657	156	
Approach Delay, s/veh				16.5	15.1	
Approach LOS				B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.0	6.0	29.5		35.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.5	5.0	23.0		32.5
Max Q Clear Time (g_c+I1), s		4.6	2.7	8.8		25.4
Green Ext Time (p_c), s		0.3	0.0	3.2		5.6
Intersection Summary						
HCM 6th Ctrl Delay			15.3			
HCM 6th LOS			B			

Lanes and Geometrics
 3: Sierra Bella Drive/Tanglewood Drive & Green River Road



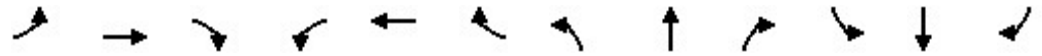
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.997			0.931				0.949
Flt Protected	0.950			0.950				0.976				0.970
Satd. Flow (prot)	1770	3507	0	1770	3529	0	0	1693	0	0	1715	0
Flt Permitted	0.950			0.950				0.832				0.793
Satd. Flow (perm)	1770	3507	0	1770	3529	0	0	1443	0	0	1402	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			87				87
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

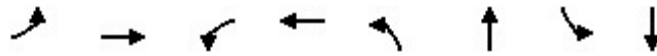
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	16	516	33	31	1379	30	71	0	75	31	0	19
Future Volume (vph)	16	516	33	31	1379	30	71	0	75	31	0	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	580	37	35	1549	34	80	0	84	35	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	617	0	35	1583	0	0	164	0	0	56	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road

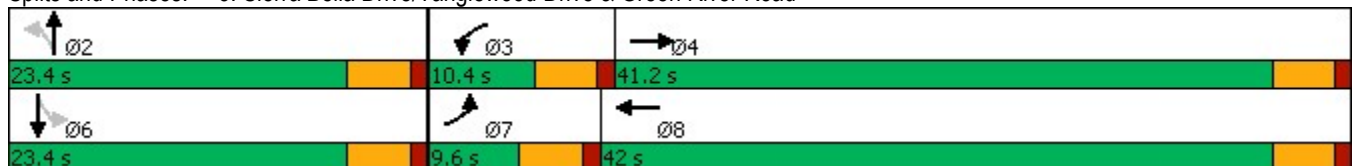


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷		↷		↷
Traffic Volume (vph)	16	516	31	1379	71	0	31	0
Future Volume (vph)	16	516	31	1379	71	0	31	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	41.2	10.4	42.0	23.4	23.4	23.4	23.4
Total Split (%)	12.8%	54.9%	13.9%	56.0%	31.2%	31.2%	31.2%	31.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.1	33.8	5.8	36.0		19.0		19.0
Actuated g/C Ratio	0.08	0.51	0.09	0.55		0.29		0.29
v/c Ratio	0.13	0.34	0.22	0.82		0.34		0.12
Control Delay	32.9	10.6	33.6	17.5		12.9		3.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	32.9	10.6	33.6	17.5		12.9		3.1
LOS	C	B	C	B		B		A
Approach Delay		11.3		17.9		12.9		3.1
Approach LOS		B		B		B		A

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 65.8
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.5
 Intersection LOS: B
 Intersection Capacity Utilization 56.0%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

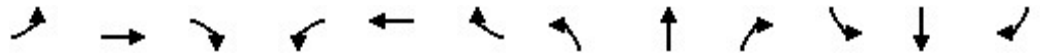


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	516	33	31	1379	30	71	0	75	31	0	19
Future Volume (veh/h)	16	516	33	31	1379	30	71	0	75	31	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	580	37	35	1549	34	80	0	84	35	0	21
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	1674	107	63	1805	40	255	25	212	322	19	154
Arrive On Green	0.02	0.49	0.49	0.04	0.51	0.51	0.27	0.00	0.27	0.27	0.00	0.27
Sat Flow, veh/h	1781	3392	216	1781	3555	78	644	93	773	864	70	560
Grp Volume(v), veh/h	18	303	314	35	773	810	164	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1856	1509	0	0	1493	0	0
Q Serve(g_s), s	0.7	7.2	7.2	1.3	26.1	26.2	3.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	7.2	7.2	1.3	26.1	26.2	5.8	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.49		0.51	0.62		0.37
Lane Grp Cap(c), veh/h	38	877	904	63	902	942	493	0	0	495	0	0
V/C Ratio(X)	0.48	0.35	0.35	0.55	0.86	0.86	0.33	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	132	948	977	153	969	1012	493	0	0	495	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(l)	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	33.3	10.6	10.6	32.6	14.8	14.8	20.1	0.0	0.0	18.7	0.0	0.0
Incr Delay (d2), s/veh	9.1	0.2	0.2	7.4	7.3	7.2	1.8	0.0	0.0	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	0.4	2.5	2.6	0.7	10.7	11.2	2.3	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	10.9	10.9	40.0	22.1	22.0	21.9	0.0	0.0	19.1	0.0	0.0
LnGrp LOS	D	B	B	D	C	C	C	A	A	B	A	A
Approach Vol, veh/h		635			1618			164				56
Approach Delay, s/veh		11.8			22.4			21.9				19.1
Approach LOS		B			C			C				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.9	38.4		23.4	6.0	39.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.9	5.9	36.7		18.9	5.1	37.5				
Max Q Clear Time (g_c+I1), s		7.8	3.3	9.2		3.7	2.7	28.2				
Green Ext Time (p_c), s		0.6	0.0	4.1		0.2	0.0	6.7				
Intersection Summary												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

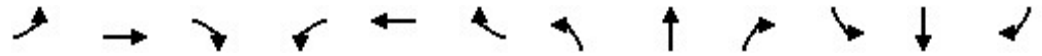
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.851	0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						115						187
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	282	329	0	0	1081	75	0	0	0	41	1	329
Future Volume (vph)	282	329	0	0	1081	75	0	0	0	41	1	329
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	320	374	0	0	1228	85	0	0	0	47	1	374
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	320	374	0	0	1228	85	0	0	0	47	188	187
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

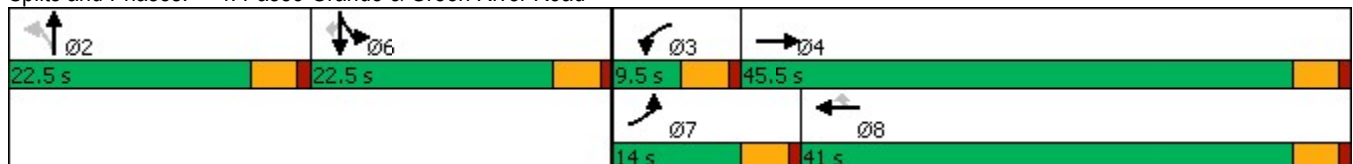


Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR	Ø2	Ø3
Lane Configurations	↖↗	↕↗	↖↖	↖↗	↖↗	↘↗	↘↗		
Traffic Volume (vph)	282	329	1081	75	41	1	329		
Future Volume (vph)	282	329	1081	75	41	1	329		
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm		
Protected Phases	7	4	8		6	6		2	3
Permitted Phases				8			6		
Detector Phase	7	4	8	8	6	6	6		
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	45.5	41.0	41.0	22.5	22.5	22.5	22.5	9.5
Total Split (%)	14.0%	45.5%	41.0%	41.0%	22.5%	22.5%	22.5%	23%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	None
Act Effct Green (s)	9.5	50.5	36.5	36.5	18.0	18.0	18.0		
Actuated g/C Ratio	0.10	0.50	0.36	0.36	0.18	0.18	0.18		
v/c Ratio	0.98	0.21	0.95	0.13	0.15	0.44	0.44		
Control Delay	91.9	14.1	47.5	2.4	36.0	9.1	9.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	91.9	14.1	47.5	2.4	36.0	9.1	9.0		
LOS	F	B	D	A	D	A	A		
Approach Delay		50.0	44.6			12.1			
Approach LOS		D	D			B			

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 40.5
 Intersection LOS: D
 Intersection Capacity Utilization 56.0%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	329	0	0	1081	75	0	0	0	41	1	329
Future Volume (veh/h)	282	329	0	0	1081	75	0	0	0	41	1	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	374	0	0	1228	85	0	0	0	47	0	375
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	1791	0	2	1292	576	0	337	0	321	0	572
Arrive On Green	0.10	0.50	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	3456	3647	0	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	320	374	0	0	1228	85	0	0	0	47	0	375
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	9.2	5.8	0.0	0.0	33.5	3.6	0.0	0.0	0.0	2.2	0.0	11.0
Cycle Q Clear(g_c), s	9.2	5.8	0.0	0.0	33.5	3.6	0.0	0.0	0.0	2.2	0.0	11.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	1791	0	2	1292	576	0	337	0	321	0	572
V/C Ratio(X)	0.97	0.21	0.00	0.00	0.95	0.15	0.00	0.00	0.00	0.15	0.00	0.66
Avail Cap(c_a), veh/h	329	1791	0	89	1300	580	0	337	0	321	0	572
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(l)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.0	13.7	0.0	0.0	30.9	21.4	0.0	0.0	0.0	34.4	0.0	38.0
Incr Delay (d2), s/veh	42.1	0.1	0.0	0.0	14.7	0.1	0.0	0.0	0.0	1.0	0.0	5.8
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	5.8	2.3	0.0	0.0	16.5	1.3	0.0	0.0	0.0	1.0	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.1	13.8	0.0	0.0	45.6	21.5	0.0	0.0	0.0	35.4	0.0	43.8
LnGrp LOS	F	B	A	A	D	C	A	A	A	D	A	D
Approach Vol, veh/h		694			1313			0				422
Approach Delay, s/veh		47.6			44.0			0.0				42.9
Approach LOS		D			D							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	0.0	54.8		22.5	14.0	40.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	41.0		18.0	9.5	36.5				
Max Q Clear Time (g_c+I1), s		0.0	0.0	7.8		13.0	11.2	35.5				
Green Ext Time (p_c), s		0.0	0.0	2.7		0.8	0.0	0.8				

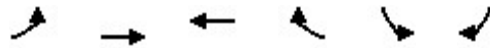
Intersection Summary

HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue

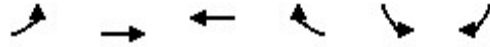


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.997			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3529	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3529	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			4			50
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

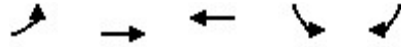
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	18	374	1010	22	28	47
Future Volume (vph)	18	374	1010	22	28	47
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	19	398	1074	23	30	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	398	1097	0	30	50
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

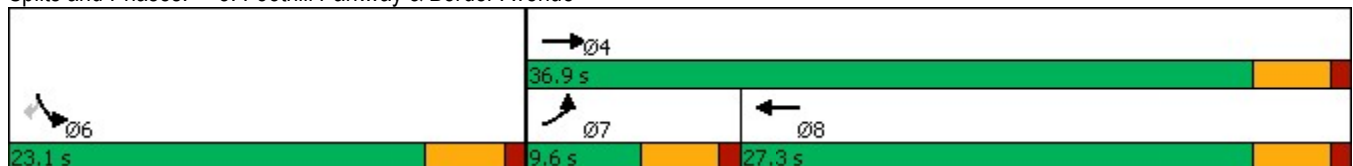


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	18	374	1010	28	47
Future Volume (vph)	18	374	1010	28	47
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	36.9	27.3	23.1	23.1
Total Split (%)	16.0%	61.5%	45.5%	38.5%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	5.2	22.8	21.2	18.8	18.8
Actuated g/C Ratio	0.10	0.45	0.42	0.37	0.37
v/c Ratio	0.11	0.25	0.74	0.05	0.08
Control Delay	24.6	8.7	17.1	12.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	8.7	17.1	12.7	5.3
LOS	C	A	B	B	A
Approach Delay		9.5	17.1	8.1	
Approach LOS		A	B	A	

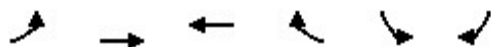
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 50.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 14.6
 Intersection LOS: B
 Intersection Capacity Utilization 40.3%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue



HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑↑	↑↗		↙	↘	
Traffic Volume (veh/h)	18	374	1010	22	28	47	
Future Volume (veh/h)	18	374	1010	22	28	47	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	19	398	1074	23	30	50	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	41	1715	1335	29	621	553	
Arrive On Green	0.02	0.48	0.38	0.38	0.35	0.35	
Sat Flow, veh/h	1781	3647	3651	76	1781	1585	
Grp Volume(v), veh/h	19	398	536	561	30	50	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1857	1781	1585	
Q Serve(g_s), s	0.6	3.5	14.4	14.4	0.6	1.1	
Cycle Q Clear(g_c), s	0.6	3.5	14.4	14.4	0.6	1.1	
Prop In Lane	1.00			0.04	1.00	1.00	
Lane Grp Cap(c), veh/h	41	1715	667	697	621	553	
V/C Ratio(X)	0.46	0.23	0.80	0.80	0.05	0.09	
Avail Cap(c_a), veh/h	170	2159	760	794	621	553	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	25.7	8.0	14.9	14.9	11.5	11.7	
Incr Delay (d2), s/veh	7.9	0.1	5.6	5.4	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	1.1	5.9	6.2	0.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.7	8.1	20.6	20.3	11.7	12.0	
LnGrp LOS	C	A	C	C	B	B	
Approach Vol, veh/h		417	1097		80		
Approach Delay, s/veh		9.3	20.4		11.9		
Approach LOS		A	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				30.2	23.1	5.7	24.5
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.4	18.6	5.1	22.8
Max Q Clear Time (g_c+I1), s				5.5	3.1	2.6	16.4
Green Ext Time (p_c), s				2.7	0.2	0.0	3.6
Intersection Summary							
HCM 6th Ctrl Delay			17.1				
HCM 6th LOS			B				

Lanes and Geometrics
6: Chase Drive & Foothill Parkway

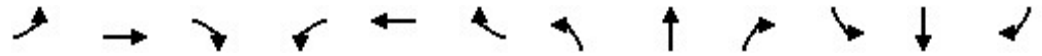


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999							0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	3539	0	1770	3536	0	0	1863	0	1770	1583	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	3539	0	1770	3536	0	0	1863	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												656
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

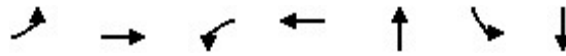
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	12	384	1	4	941	5	0	1	0	11	0	91
Future Volume (vph)	12	384	1	4	941	5	0	1	0	11	0	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	13	417	1	4	1023	5	0	1	0	12	0	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	418	0	4	1028	0	0	1	0	12	99	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

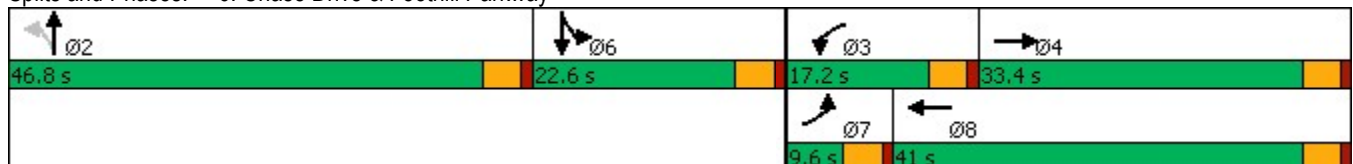


Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↕	↘	↙
Traffic Volume (vph)	12	384	4	941	1	11	0
Future Volume (vph)	12	384	4	941	1	11	0
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	33.4	17.2	41.0	46.8	22.6	22.6
Total Split (%)	8.0%	27.8%	14.3%	34.2%	39.0%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	5.2	26.7	5.8	26.9	5.7	6.1	6.1
Actuated g/C Ratio	0.10	0.49	0.11	0.50	0.11	0.11	0.11
v/c Ratio	0.08	0.24	0.02	0.58	0.01	0.06	0.13
Control Delay	28.1	8.6	26.8	11.4	27.0	26.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	8.6	26.8	11.4	27.0	26.5	0.4
LOS	C	A	C	B	C	C	A
Approach Delay		9.2		11.5	27.0		3.2
Approach LOS		A		B	C		A




















Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 54	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

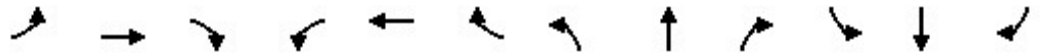
Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	384	1	4	941	5	0	1	0	11	0	91
Future Volume (veh/h)	12	384	1	4	941	5	0	1	0	11	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	417	1	4	1023	5	0	1	0	12	0	99
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1551	4	10	1506	7	0	187	0	192	0	170
Arrive On Green	0.02	0.43	0.43	0.01	0.42	0.42	0.00	0.10	0.00	0.11	0.00	0.11
Sat Flow, veh/h	1781	3637	9	1781	3626	18	0	1870	0	1781	0	1585
Grp Volume(v), veh/h	13	204	214	4	501	527	0	1	0	12	0	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1867	0	1870	0	1781	0	1585
Q Serve(g_s), s	0.4	3.7	3.7	0.1	11.5	11.5	0.0	0.0	0.0	0.3	0.0	3.0
Cycle Q Clear(g_c), s	0.4	3.7	3.7	0.1	11.5	11.5	0.0	0.0	0.0	0.3	0.0	3.0
Prop In Lane	1.00		0.00	1.00		0.01	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	29	758	797	10	738	775	0	187	0	192	0	170
V/C Ratio(X)	0.44	0.27	0.27	0.42	0.68	0.68	0.00	0.01	0.00	0.06	0.00	0.58
Avail Cap(c_a), veh/h	182	1028	1082	453	1299	1365	0	1585	0	646	0	575
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	9.3	9.3	24.8	11.9	11.9	0.0	20.2	0.0	20.0	0.0	21.2
Incr Delay (d2), s/veh	10.1	0.2	0.2	26.1	1.1	1.1	0.0	0.0	0.0	0.1	0.0	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	0.2	1.2	1.3	0.1	3.9	4.0	0.0	0.0	0.0	0.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.4	9.5	9.5	50.9	13.0	12.9	0.0	20.2	0.0	20.2	0.0	24.3
LnGrp LOS	C	A	A	D	B	B	A	C	A	C	A	C
Approach Vol, veh/h		431			1032			1				111
Approach Delay, s/veh		10.2			13.1			20.2				23.9
Approach LOS		B			B			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	4.8	25.8		9.9	5.3	25.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.3	12.7	28.9		18.1	5.1	36.5				
Max Q Clear Time (g_c+I1), s		2.0	2.1	5.7		5.0	2.4	13.5				
Green Ext Time (p_c), s		0.0	0.0	2.5		0.4	0.0	7.3				
Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

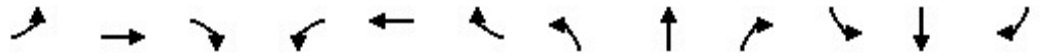


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.967			0.984			0.980				0.934
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3422	0	1770	3483	0	1770	3468	0	1770	3306	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3422	0	1770	3483	0	1770	3468	0	1770	3306	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			13			21			135	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

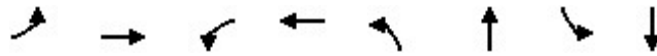
Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	134	405	115	27	600	69	264	259	40	73	154	120
Future Volume (vph)	134	405	115	27	600	69	264	259	40	73	154	120
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	151	455	129	30	674	78	297	291	45	82	173	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	151	584	0	30	752	0	297	336	0	82	308	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

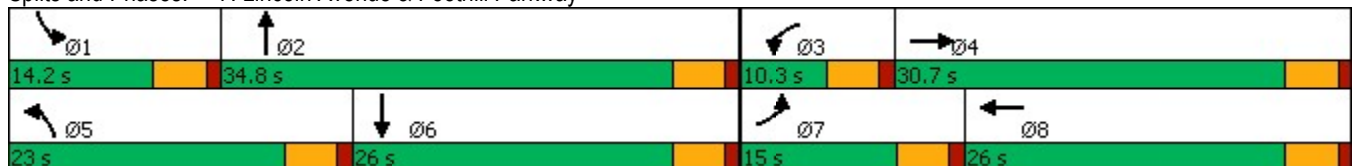


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	134	405	27	600	264	259	73	154
Future Volume (vph)	134	405	27	600	264	259	73	154
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	15.0	30.7	10.3	26.0	23.0	34.8	14.2	26.0
Total Split (%)	16.7%	34.1%	11.4%	28.9%	25.6%	38.7%	15.8%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	10.0	29.5	5.7	21.0	17.4	32.7	8.5	21.6
Actuated g/C Ratio	0.11	0.33	0.06	0.24	0.20	0.37	0.10	0.25
v/c Ratio	0.75	0.50	0.26	0.90	0.85	0.26	0.48	0.34
Control Delay	62.2	24.6	46.0	47.1	57.5	20.0	47.9	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	24.6	46.0	47.1	57.5	20.0	47.9	16.6
LOS	E	C	D	D	E	B	D	B
Approach Delay		32.3		47.0		37.6		23.2
Approach LOS		C		D		D		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 88.1
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 36.8
 Intersection LOS: D
 Intersection Capacity Utilization 63.9%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	405	115	27	600	69	264	259	40	73	154	120
Future Volume (veh/h)	134	405	115	27	600	69	264	259	40	73	154	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	455	129	30	674	78	297	291	45	82	173	135
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	859	242	53	768	89	336	1186	181	106	497	365
Arrive On Green	0.10	0.31	0.31	0.03	0.24	0.24	0.19	0.38	0.38	0.06	0.25	0.25
Sat Flow, veh/h	1781	2738	770	1781	3209	371	1781	3090	472	1781	1954	1435
Grp Volume(v), veh/h	151	294	290	30	373	379	297	166	170	82	156	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1732	1781	1777	1804	1781	1777	1785	1781	1777	1612
Q Serve(g_s), s	7.0	11.5	11.7	1.4	17.1	17.1	13.7	5.4	5.5	3.8	6.1	6.5
Cycle Q Clear(g_c), s	7.0	11.5	11.7	1.4	17.1	17.1	13.7	5.4	5.5	3.8	6.1	6.5
Prop In Lane	1.00		0.44	1.00		0.21	1.00		0.26	1.00		0.89
Lane Grp Cap(c), veh/h	186	557	543	53	425	432	336	682	685	106	452	410
V/C Ratio(X)	0.81	0.53	0.53	0.56	0.88	0.88	0.88	0.24	0.25	0.77	0.35	0.37
Avail Cap(c_a), veh/h	221	557	543	122	452	459	390	682	685	205	452	410
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	37.0	23.8	23.9	40.4	30.9	30.9	33.3	17.7	17.7	39.2	25.7	25.9
Incr Delay (d2), s/veh	17.6	0.9	1.0	9.0	16.8	16.8	18.6	0.8	0.9	11.3	2.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.8	4.8	0.7	9.0	9.2	7.5	2.3	2.3	2.0	2.8	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	24.8	24.9	49.4	47.7	47.7	52.0	18.5	18.6	50.5	27.8	28.5
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		735			782			633			390	
Approach Delay, s/veh		31.0			47.8			34.2			32.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	36.9	7.0	31.0	20.5	26.0	13.3	24.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	30.3	5.8	26.2	18.5	21.5	10.5	21.5				
Max Q Clear Time (g_c+I1), s	5.8	7.5	3.4	13.7	15.7	8.5	9.0	19.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	2.9	0.3	1.4	0.1	1.1				

Intersection Summary												
HCM 6th Ctrl Delay											37.2	
HCM 6th LOS											D	

Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	 	 	 	 	 	 	 		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			193			94			255			94
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	129	396	160	162	307	152	188	737	260	232	444	53
Future Volume (vph)	129	396	160	162	307	152	188	737	260	232	444	53
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	155	477	193	195	370	183	227	888	313	280	535	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	477	193	195	370	183	227	888	313	280	535	64
Intersection Summary												

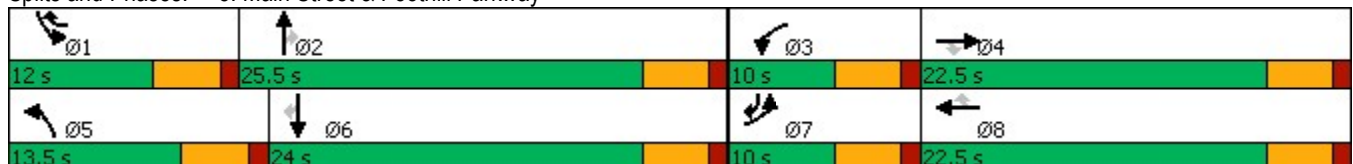
Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	396	160	162	307	152	188	737	260	232	444	53
Future Volume (vph)	129	396	160	162	307	152	188	737	260	232	444	53
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	10.0	22.5	22.5	10.0	22.5	12.0	13.5	25.5	25.5	12.0	24.0	10.0
Total Split (%)	14.3%	32.1%	32.1%	14.3%	32.1%	17.1%	19.3%	36.4%	36.4%	17.1%	34.3%	14.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.5	15.0	15.0	5.5	17.1	29.2	8.5	21.1	21.1	7.5	20.1	30.1
Actuated g/C Ratio	0.08	0.22	0.22	0.08	0.25	0.44	0.13	0.31	0.31	0.11	0.30	0.45
v/c Ratio	0.55	0.60	0.38	0.69	0.41	0.25	0.52	0.80	0.47	0.73	0.51	0.08
Control Delay	38.3	26.8	6.2	45.5	23.1	7.6	32.6	28.6	7.4	42.5	22.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	26.8	6.2	45.5	23.1	7.6	32.6	28.6	7.4	42.5	22.2	1.8
LOS	D	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		24.1			25.2			24.6			27.2	
Approach LOS		C			C			C			C	
































Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 67.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 25.2
 Intersection LOS: C
 Intersection Capacity Utilization 57.6%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 8: Main Street & Foothill Parkway



HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	129	396	160	162	307	152	188	737	260	232	444	53
Future Volume (veh/h)	129	396	160	162	307	152	188	737	260	232	444	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	477	193	195	370	183	227	888	313	280	535	64
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	691	308	288	726	498	333	1171	523	380	1219	660
Arrive On Green	0.07	0.19	0.19	0.08	0.20	0.20	0.10	0.33	0.33	0.11	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	155	477	193	195	370	183	227	888	313	280	535	64
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.8	8.0	7.1	3.5	5.9	5.7	4.0	14.2	10.5	5.0	7.4	1.6
Cycle Q Clear(g_c), s	2.8	8.0	7.1	3.5	5.9	5.7	4.0	14.2	10.5	5.0	7.4	1.6
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	254	691	308	288	726	498	333	1171	523	380	1219	660
V/C Ratio(X)	0.61	0.69	0.63	0.68	0.51	0.37	0.68	0.76	0.60	0.74	0.44	0.10
Avail Cap(c_a), veh/h	298	1004	448	298	1004	622	488	1171	523	407	1219	660
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	28.6	23.9	23.5	28.4	22.5	16.9	27.8	19.1	17.8	27.5	16.2	11.3
Incr Delay (d2), s/veh	2.7	1.2	2.1	5.7	0.6	0.5	2.4	4.6	5.0	6.4	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	1.2	3.3	2.7	1.6	2.4	2.0	1.7	6.1	4.2	2.3	2.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	25.1	25.6	34.1	23.1	17.4	30.3	23.7	22.8	33.9	17.3	11.6
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	B	B
Approach Vol, veh/h		825			748			1428			879	
Approach Delay, s/veh		26.4			24.5			24.6			22.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	25.5	9.8	16.9	10.6	26.4	9.2	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	21.0	5.5	18.0	9.0	19.5	5.5	18.0				
Max Q Clear Time (g_c+I1), s	7.0	16.2	5.5	10.0	6.0	9.4	4.8	7.9				
Green Ext Time (p_c), s	0.1	2.9	0.0	2.4	0.2	2.7	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				24.4								
HCM 6th LOS				C								

Lanes and Geometrics
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.973				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			182			31			242
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	179	683	87	59	667	86	268	312	69	53	129	218
Future Volume (vph)	179	683	87	59	667	86	268	312	69	53	129	218
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	239	911	116	79	889	115	357	416	92	71	172	291
Shared Lane Traffic (%)												
Lane Group Flow (vph)	239	911	116	79	889	115	357	508	0	71	172	291
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↗	↘
Traffic Volume (vph)	179	683	87	59	667	86	268	312	53	129	218
Future Volume (vph)	179	683	87	59	667	86	268	312	53	129	218
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	17.0	31.5	31.5	13.0	27.5	27.5	23.0	32.5	13.0	22.5	22.5
Total Split (%)	18.9%	35.0%	35.0%	14.4%	30.6%	30.6%	25.6%	36.1%	14.4%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	12.5	29.7	29.7	7.8	23.0	23.0	18.5	30.8	7.7	18.0	18.0
Actuated g/C Ratio	0.14	0.33	0.33	0.09	0.26	0.26	0.21	0.34	0.09	0.20	0.20
v/c Ratio	0.98	0.78	0.18	0.51	0.98	0.21	0.98	0.42	0.47	0.46	0.57
Control Delay	92.6	34.0	1.4	51.2	60.8	1.8	81.0	23.6	49.2	36.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.6	34.0	1.4	51.2	60.8	1.8	81.0	23.6	49.2	36.4	12.2
LOS	F	C	A	D	E	A	F	C	D	D	B
Approach Delay		42.1			53.8			47.3		24.9	
Approach LOS		D			D			D		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 44.2

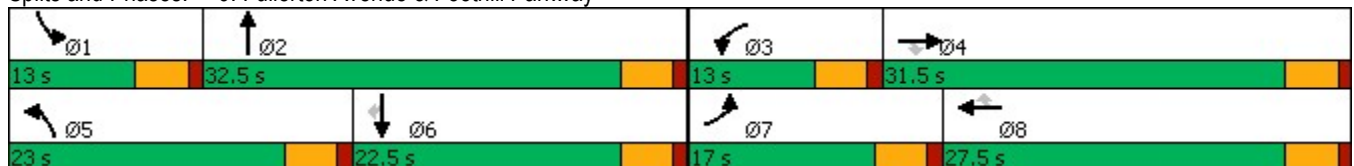
Intersection LOS: D

Intersection Capacity Utilization 65.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	683	87	59	667	86	268	312	69	53	129	218
Future Volume (veh/h)	179	683	87	59	667	86	268	312	69	53	129	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	911	116	79	889	115	357	416	92	71	172	291
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1199	535	102	908	405	366	1026	225	92	374	317
Arrive On Green	0.14	0.34	0.34	0.06	0.26	0.26	0.21	0.35	0.35	0.05	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2898	635	1781	1870	1585
Grp Volume(v), veh/h	239	911	116	79	889	115	357	254	254	71	172	291
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1756	1781	1870	1585
Q Serve(g_s), s	12.0	20.6	4.7	3.9	22.4	5.2	17.9	9.7	9.8	3.5	7.3	16.2
Cycle Q Clear(g_c), s	12.0	20.6	4.7	3.9	22.4	5.2	17.9	9.7	9.8	3.5	7.3	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	247	1199	535	102	908	405	366	629	622	92	374	317
V/C Ratio(X)	0.97	0.76	0.22	0.78	0.98	0.28	0.97	0.40	0.41	0.77	0.46	0.92
Avail Cap(c_a), veh/h	247	1199	535	168	908	405	366	629	622	168	374	317
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	26.6	21.3	41.9	33.3	26.9	35.5	21.9	22.0	42.2	31.7	35.3
Incr Delay (d2), s/veh	47.6	2.9	0.2	11.9	24.7	0.4	40.2	1.9	2.0	12.9	4.0	33.4
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	8.4	8.9	1.7	2.0	12.4	2.0	11.7	4.3	4.3	1.9	3.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	29.5	21.5	53.7	58.0	27.3	75.8	23.8	23.9	55.1	35.7	68.6
LnGrp LOS	F	C	C	D	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1266			1083			865			534	
Approach Delay, s/veh		39.4			54.4			45.3			56.2	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	36.4	9.6	34.9	23.0	22.5	17.0	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	28.0	8.5	27.0	18.5	18.0	12.5	23.0				
Max Q Clear Time (g_c+I1), s	5.5	11.8	5.9	22.6	19.9	18.2	14.0	24.4				
Green Ext Time (p_c), s	0.0	2.8	0.0	2.5	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			47.5									
HCM 6th LOS			D									

Lanes and Geometrics
1: Serfas Club Drive & Green River Road

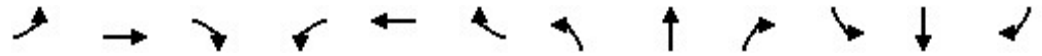


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.967			0.955				0.850
Flt Protected	0.950			0.950				0.995		0.950	0.960	
Satd. Flow (prot)	3433	3536	0	1770	3422	0	0	1770	0	1681	1699	1583
Flt Permitted	0.950			0.950				0.581		0.950	0.960	
Satd. Flow (perm)	3433	3536	0	1770	3422	0	0	1034	0	1681	1699	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33			10				319
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	187	1453	7	16	480	136	3	16	10	538	47	306
Future Volume (vph)	187	1453	7	16	480	136	3	16	10	538	47	306
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	195	1514	7	17	500	142	3	17	10	560	49	319
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	195	1521	0	17	642	0	0	30	0	302	307	319
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

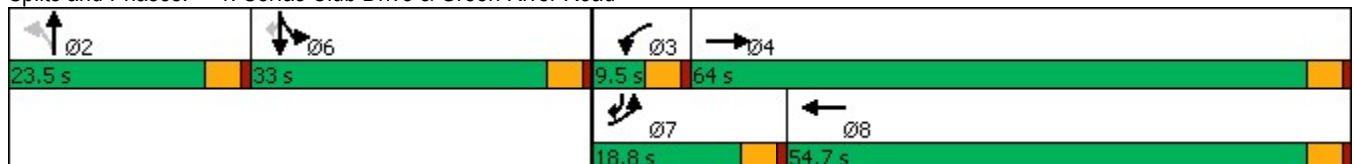


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖ ↗	↕	↖	↕		↕	↖	↕	↗
Traffic Volume (vph)	187	1453	16	480	3	16	538	47	306
Future Volume (vph)	187	1453	16	480	3	16	538	47	306
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	18.8	64.0	9.5	54.7	23.5	23.5	33.0	33.0	18.8
Total Split (%)	14.5%	49.2%	7.3%	42.1%	18.1%	18.1%	25.4%	25.4%	14.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	11.9	57.1	5.1	44.2		19.2	25.5	25.5	41.9
Actuated g/C Ratio	0.10	0.48	0.04	0.37		0.16	0.21	0.21	0.35
v/c Ratio	0.57	0.90	0.23	0.50		0.17	0.84	0.84	0.42
Control Delay	59.6	37.3	66.9	29.0		38.1	66.7	67.0	4.8
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	59.6	37.3	66.9	29.0		38.1	66.7	67.0	4.8
LOS	E	D	E	C		D	E	E	A
Approach Delay		39.8		30.0		38.1		45.5	
Approach LOS		D		C		D		D	

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 118.9
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 39.5
 Intersection LOS: D
 Intersection Capacity Utilization 78.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1453	7	16	480	136	3	16	10	538	47	306
Future Volume (veh/h)	187	1453	7	16	480	136	3	16	10	538	47	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	1514	7	17	500	142	3	17	10	595	0	319
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1682	8	32	1114	315	28	157	92	751	0	452
Arrive On Green	0.07	0.46	0.46	0.02	0.41	0.41	0.16	0.16	0.16	0.21	0.00	0.21
Sat Flow, veh/h	3456	3627	17	1781	2736	773	176	995	585	3563	0	1585
Grp Volume(v), veh/h	195	741	780	17	324	318	30	0	0	595	0	319
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1731	1756	0	0	1781	0	1585
Q Serve(g_s), s	6.7	46.2	46.2	1.1	15.9	16.1	1.8	0.0	0.0	19.0	0.0	21.7
Cycle Q Clear(g_c), s	6.7	46.2	46.2	1.1	15.9	16.1	1.8	0.0	0.0	19.0	0.0	21.7
Prop In Lane	1.00		0.01	1.00		0.45	0.10		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	257	824	866	32	724	705	277	0	0	751	0	452
V/C Ratio(X)	0.76	0.90	0.90	0.53	0.45	0.45	0.11	0.00	0.00	0.79	0.00	0.71
Avail Cap(c_a), veh/h	411	879	924	74	741	722	277	0	0	844	0	493
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	1.00
Uniform Delay (d), s/veh	54.6	29.7	29.7	58.6	25.8	25.9	43.4	0.0	0.0	45.0	0.0	38.5
Incr Delay (d2), s/veh	4.6	11.8	11.3	12.9	0.4	0.5	0.8	0.0	0.0	4.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	21.8	22.9	0.6	6.8	6.7	0.8	0.0	0.0	8.9	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	41.5	41.1	71.4	26.3	26.3	44.2	0.0	0.0	49.7	0.0	42.6
LnGrp LOS	E	D	D	E	C	C	D	A	A	D	A	D
Approach Vol, veh/h		1716			659			30			914	
Approach Delay, s/veh		43.3			27.5			44.2			47.2	
Approach LOS		D			C			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	6.7	60.3		29.9	13.4	53.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	5.0	59.5		28.5	14.3	50.2				
Max Q Clear Time (g_c+I1), s		3.8	3.1	48.2		23.7	8.7	18.1				
Green Ext Time (p_c), s		0.1	0.0	7.5		1.7	0.3	4.5				

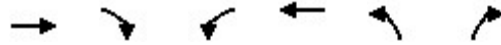
Intersection Summary

HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road

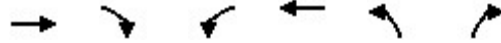


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3518	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3518	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	8					27
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

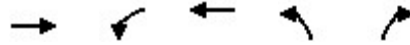
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	1874	75	16	549	35	25
Future Volume (vph)	1874	75	16	549	35	25
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1994	80	17	584	37	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2074	0	17	584	37	27
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	1874	16	549	35	25
Future Volume (vph)	1874	16	549	35	25
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	57.0	9.6	66.6	23.4	23.4
Total Split (%)	63.3%	10.7%	74.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	52.6	5.1	56.2	18.9	18.9
Actuated g/C Ratio	0.62	0.06	0.67	0.22	0.22
v/c Ratio	0.94	0.16	0.25	0.09	0.07
Control Delay	26.2	43.1	5.8	28.3	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	43.1	5.8	28.3	11.7
LOS	C	D	A	C	B
Approach Delay	26.2		6.8	21.3	
Approach LOS	C		A	C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 84.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 21.8
 Intersection LOS: C
 Intersection Capacity Utilization 65.9%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙	↗
Traffic Volume (veh/h)	1874	75	16	549	35	25
Future Volume (veh/h)	1874	75	16	549	35	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1994	80	17	584	37	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2107	84	35	2404	390	347
Arrive On Green	0.60	0.60	0.02	0.68	0.22	0.22
Sat Flow, veh/h	3577	139	1781	3647	1781	1585
Grp Volume(v), veh/h	1010	1064	17	584	37	27
Grp Sat Flow(s),veh/h/ln	1777	1845	1781	1777	1781	1585
Q Serve(g_s), s	44.9	46.4	0.8	5.5	1.4	1.2
Cycle Q Clear(g_c), s	44.9	46.4	0.8	5.5	1.4	1.2
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1075	1116	35	2404	390	347
V/C Ratio(X)	0.94	0.95	0.49	0.24	0.09	0.08
Avail Cap(c_a), veh/h	1082	1124	105	2559	390	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	15.9	41.9	5.4	26.8	26.7
Incr Delay (d2), s/veh	15.1	16.7	10.4	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.9	21.7	0.5	1.7	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.7	32.6	52.3	5.5	27.3	27.2
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	2074			601	64	
Approach Delay, s/veh	31.7			6.8	27.3	
Approach LOS	C			A	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.4	6.2	56.7		62.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.9	5.1	52.5		62.1
Max Q Clear Time (g_c+l1), s		3.4	2.8	48.4		7.5
Green Ext Time (p_c), s		0.1	0.0	3.8		4.6
Intersection Summary						
HCM 6th Ctrl Delay			26.1			
HCM 6th LOS			C			

Lanes and Geometrics

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



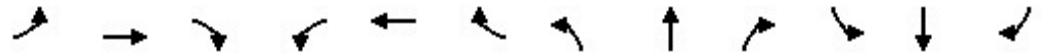
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.995			0.931				0.965
Flt Protected	0.950			0.950				0.976				0.964
Satd. Flow (prot)	1770	3518	0	1770	3522	0	0	1693	0	0	1733	0
Flt Permitted	0.950			0.950				0.853				0.816
Satd. Flow (perm)	1770	3518	0	1770	3522	0	0	1479	0	0	1467	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			6			73				73
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

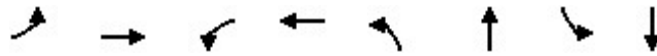
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	11	1834	75	85	514	16	49	0	52	16	0	6
Future Volume (vph)	11	1834	75	85	514	16	49	0	52	16	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	1910	78	89	535	17	51	0	54	17	0	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1988	0	89	552	0	0	105	0	0	23	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷		↷		↷
Traffic Volume (vph)	11	1834	85	514	49	0	16	0
Future Volume (vph)	11	1834	85	514	49	0	16	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	56.8	10.4	57.6	22.8	22.8	22.8	22.8
Total Split (%)	10.7%	63.1%	11.6%	64.0%	25.3%	25.3%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.1	52.3	5.9	60.8		18.3		18.3
Actuated g/C Ratio	0.06	0.58	0.07	0.68		0.20		0.20
v/c Ratio	0.11	0.97	0.77	0.23		0.29		0.06
Control Delay	42.9	33.3	81.4	6.3		14.4		0.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.9	33.3	81.4	6.3		14.4		0.4
LOS	D	C	F	A		B		A
Approach Delay		33.3		16.7		14.4		0.4
Approach LOS		C		B		B		A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 28.5
 Intersection LOS: C
 Intersection Capacity Utilization 75.1%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

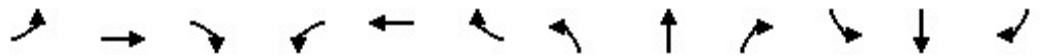


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA





























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1834	75	85	514	16	49	0	52	16	0	6
Future Volume (veh/h)	11	1834	75	85	514	16	49	0	52	16	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1910	78	89	535	17	51	0	54	17	0	6
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	2021	82	114	2218	70	191	20	160	285	10	80
Arrive On Green	0.01	0.58	0.58	0.06	0.63	0.63	0.20	0.00	0.20	0.20	0.00	0.20
Sat Flow, veh/h	1781	3481	141	1781	3516	112	642	96	782	1050	51	389
Grp Volume(v), veh/h	11	969	1019	89	270	282	105	0	0	23	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1845	1781	1777	1850	1520	0	0	1489	0	0
Q Serve(g_s), s	0.5	44.9	46.3	4.4	5.9	5.9	2.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	44.9	46.3	4.4	5.9	5.9	5.0	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.06	0.49		0.51	0.74		0.26
Lane Grp Cap(c), veh/h	24	1032	1071	114	1121	1167	371	0	0	375	0	0
V/C Ratio(X)	0.46	0.94	0.95	0.78	0.24	0.24	0.28	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	102	1039	1079	118	1121	1167	371	0	0	375	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(l)	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	43.8	17.3	17.6	41.2	7.2	7.2	30.2	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	13.3	15.4	17.0	27.7	0.1	0.1	1.9	0.0	0.0	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	0.3	20.5	22.2	2.8	2.0	2.1	2.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	32.6	34.6	68.9	7.3	7.3	32.1	0.0	0.0	29.0	0.0	0.0
LnGrp LOS	E	C	C	E	A	A	C	A	A	C	A	A
Approach Vol, veh/h		1999			641			105				23
Approach Delay, s/veh		33.8			15.8			32.1				29.0
Approach LOS		C			B			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	10.2	56.4		22.8	5.7	60.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.3	5.9	52.3		18.3	5.1	53.1				
Max Q Clear Time (g_c+I1), s		7.0	6.4	48.3		2.9	2.5	7.9				
Green Ext Time (p_c), s		0.3	0.0	3.6		0.0	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay				29.5								
HCM 6th LOS				C								

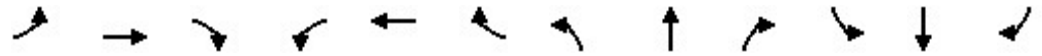
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 		 	 	 
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.850	0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						136					543	543
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

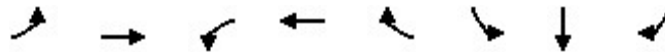
Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	158	1706	2	1	441	37	0	0	0	76	0	160
Future Volume (vph)	158	1706	2	1	441	37	0	0	0	76	0	160
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	163	1759	2	1	455	38	0	0	0	78	0	165
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	163	1761	0	1	455	38	0	0	0	78	83	82
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

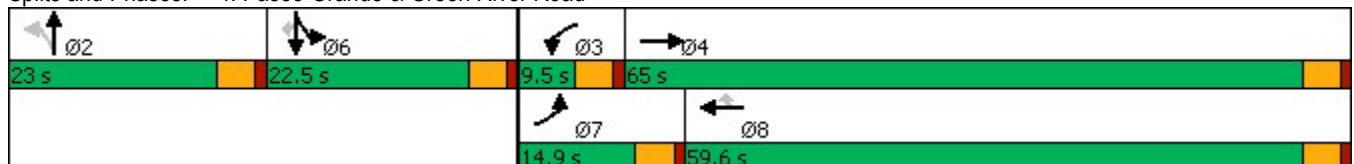


Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations	↖ ↗	↕ ↗	↖	↕ ↕	↖	↖	↗	↖	
Traffic Volume (vph)	158	1706	1	441	37	76	0	160	
Future Volume (vph)	158	1706	1	441	37	76	0	160	
Turn Type	Prot	NA	Prot	NA	Perm	Split	NA	Perm	
Protected Phases	7	4	3	8		6	6		2
Permitted Phases					8				6
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	14.9	65.0	9.5	59.6	59.6	22.5	22.5	22.5	23.0
Total Split (%)	12.4%	54.2%	7.9%	49.7%	49.7%	18.8%	18.8%	18.8%	19%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	9.7	60.6	5.0	48.2	48.2	18.0	18.0	18.0	
Actuated g/C Ratio	0.09	0.54	0.04	0.43	0.43	0.16	0.16	0.16	
v/c Ratio	0.55	0.92	0.01	0.30	0.05	0.28	0.12	0.12	
Control Delay	57.2	33.7	54.0	21.7	0.1	45.3	0.3	0.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.2	33.7	54.0	21.7	0.1	45.3	0.3	0.3	
LOS	E	C	D	C	A	D	A	A	
Approach Delay		35.7		20.1			14.8		
Approach LOS		D		C			B		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 112.4
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 30.9
 Intersection LOS: C
 Intersection Capacity Utilization 66.8%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1706	2	1	441	37	0	0	0	76	0	160
Future Volume (veh/h)	158	1706	2	1	441	37	0	0	0	76	0	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	1759	2	1	455	38	0	0	0	78	0	165
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1892	2	2	1621	723	0	304	0	282	0	502
Arrive On Green	0.06	0.52	0.52	0.00	0.46	0.46	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	3456	3642	4	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	163	858	903	1	455	38	0	0	0	78	0	165
Grp Sat Flow(s),veh/h/ln	1728	1777	1870	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	5.3	51.0	51.1	0.1	9.1	1.5	0.0	0.0	0.0	4.4	0.0	5.3
Cycle Q Clear(g_c), s	5.3	51.0	51.1	0.1	9.1	1.5	0.0	0.0	0.0	4.4	0.0	5.3
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	923	971	2	1621	723	0	304	0	282	0	502
V/C Ratio(X)	0.73	0.93	0.93	0.41	0.28	0.05	0.00	0.00	0.00	0.28	0.00	0.33
Avail Cap(c_a), veh/h	316	945	995	78	1722	768	0	304	0	282	0	502
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.2	25.4	25.4	56.7	19.3	17.2	0.0	0.0	0.0	42.1	0.0	42.5
Incr Delay (d2), s/veh	5.0	15.0	14.4	84.4	0.1	0.0	0.0	0.0	0.0	2.4	0.0	1.7
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	2.4	24.2	25.4	0.1	3.7	0.6	0.0	0.0	0.0	2.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	40.4	39.8	141.1	19.4	17.3	0.0	0.0	0.0	44.6	0.0	44.2
LnGrp LOS	E	D	D	F	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1924			494			0				243
Approach Delay, s/veh		41.6			19.5			0.0				44.3
Approach LOS		D			B							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	4.7	63.6		22.5	11.9	56.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	60.5		18.0	10.4	55.1				
Max Q Clear Time (g_c+I1), s		0.0	2.1	53.1		7.3	7.3	11.1				
Green Ext Time (p_c), s		0.0	0.0	6.0		0.6	0.1	3.5				

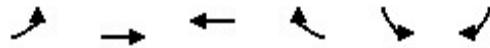
Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.994			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3518	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3518	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			7			19
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

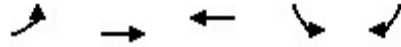
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	36	1631	474	19	16	19
Future Volume (vph)	36	1631	474	19	16	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	37	1664	484	19	16	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	1664	503	0	16	19
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

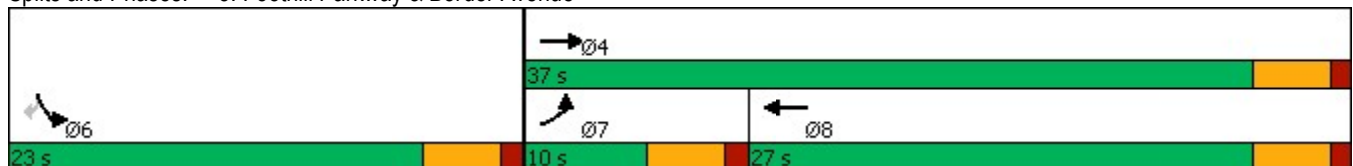


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	36	1631	474	16	19
Future Volume (vph)	36	1631	474	16	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	37.0	27.0	23.0	23.0
Total Split (%)	16.7%	61.7%	45.0%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	5.5	32.2	28.2	18.5	18.5
Actuated g/C Ratio	0.09	0.54	0.47	0.31	0.31
v/c Ratio	0.23	0.87	0.30	0.03	0.04
Control Delay	29.0	18.8	11.3	14.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	18.8	11.3	14.8	7.6
LOS	C	B	B	B	A
Approach Delay		19.1	11.3	10.9	
Approach LOS		B	B	B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 59.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 17.2
 Intersection LOS: B
 Intersection Capacity Utilization 56.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue

























HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	36	1631	474	19	16	19	
Future Volume (veh/h)	36	1631	474	19	16	19	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	37	1664	484	19	16	19	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	69	1891	1454	57	561	499	
Arrive On Green	0.04	0.53	0.42	0.42	0.31	0.31	
Sat Flow, veh/h	1781	3647	3579	137	1781	1585	
Grp Volume(v), veh/h	37	1664	246	257	16	19	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1846	1781	1585	
Q Serve(g_s), s	1.2	24.2	5.5	5.5	0.4	0.5	
Cycle Q Clear(g_c), s	1.2	24.2	5.5	5.5	0.4	0.5	
Prop In Lane	1.00			0.07	1.00	1.00	
Lane Grp Cap(c), veh/h	69	1891	741	770	561	499	
V/C Ratio(X)	0.54	0.88	0.33	0.33	0.03	0.04	
Avail Cap(c_a), veh/h	167	1965	741	770	561	499	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	27.7	12.1	11.6	11.6	13.9	14.0	
Incr Delay (d2), s/veh	6.4	4.9	0.3	0.3	0.1	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	8.7	1.9	2.0	0.1	0.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	34.2	17.0	11.9	11.9	14.0	14.1	
LnGrp LOS	C	B	B	B	B	B	
Approach Vol, veh/h		1701	503		35		
Approach Delay, s/veh		17.3	11.9		14.1		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				35.8	23.0	6.8	29.0
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.5	18.5	5.5	22.5
Max Q Clear Time (g_c+I1), s				26.2	2.5	3.2	7.5
Green Ext Time (p_c), s				5.1	0.0	0.0	2.6
Intersection Summary							
HCM 6th Ctrl Delay			16.0				
HCM 6th LOS			B				

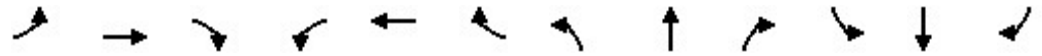
Lanes and Geometrics
6: Chase Drive & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998							0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	3539	0	1770	3532	0	0	1863	0	1770	1583	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	3539	0	1770	3532	0	0	1863	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1							557
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	93	1538	0	1	460	7	0	0	0	6	0	46
Future Volume (vph)	93	1538	0	1	460	7	0	0	0	6	0	46
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	99	1636	0	1	489	7	0	0	0	6	0	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	1636	0	1	496	0	0	0	0	6	49	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

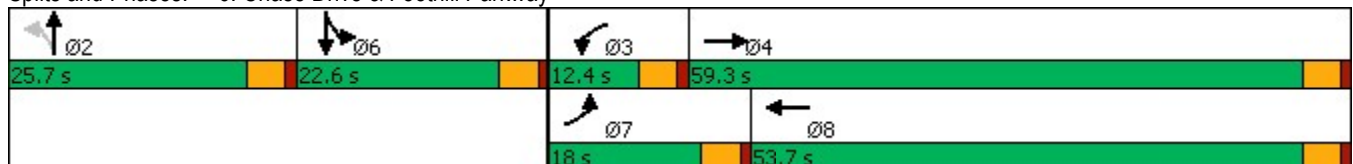


Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	Ø2
Lane Configurations	↖	↗	↖	↗	↖	↗	
Traffic Volume (vph)	93	1538	1	460	6	0	
Future Volume (vph)	93	1538	1	460	6	0	
Turn Type	Prot	NA	Prot	NA	Split	NA	
Protected Phases	7	4	3	8	6	6	2
Permitted Phases							
Detector Phase	7	4	3	8	6	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	18.0	59.3	12.4	53.7	22.6	22.6	25.7
Total Split (%)	15.0%	49.4%	10.3%	44.8%	18.8%	18.8%	21%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	9.7	53.2	5.6	43.2	5.9	5.9	
Actuated g/C Ratio	0.12	0.66	0.07	0.54	0.07	0.07	
v/c Ratio	0.46	0.69	0.01	0.26	0.05	0.08	
Control Delay	40.6	11.0	38.0	11.3	37.8	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	40.6	11.0	38.0	11.3	37.8	0.2	
LOS	D	B	D	B	D	A	
Approach Delay		12.7		11.3		4.3	
Approach LOS		B		B		A	

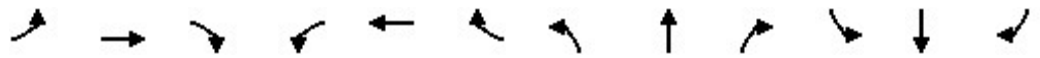
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 80
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 12.2
 Intersection LOS: B
 Intersection Capacity Utilization 62.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 6: Chase Drive & Foothill Parkway



























HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕		↖	↗	
Traffic Volume (veh/h)	93	1538	0	1	460	7	0	0	0	6	0	46
Future Volume (veh/h)	93	1538	0	1	460	7	0	0	0	6	0	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1636	0	1	489	7	0	0	0	6	0	49
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	2351	0	3	2117	30	0	3	0	162	0	144
Arrive On Green	0.07	0.66	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.09	0.00	0.09
Sat Flow, veh/h	1781	3647	0	1781	3587	51	0	1870	0	1781	0	1585
Grp Volume(v), veh/h	99	1636	0	1	242	254	0	0	0	6	0	49
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1861	0	1870	0	1781	0	1585
Q Serve(g_s), s	3.0	15.8	0.0	0.0	3.5	3.6	0.0	0.0	0.0	0.2	0.0	1.6
Cycle Q Clear(g_c), s	3.0	15.8	0.0	0.0	3.5	3.6	0.0	0.0	0.0	0.2	0.0	1.6
Prop In Lane	1.00		0.00	1.00		0.03	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	2351	0	3	1049	1099	0	3	0	162	0	144
V/C Ratio(X)	0.76	0.70	0.00	0.31	0.23	0.23	0.00	0.00	0.00	0.04	0.00	0.34
Avail Cap(c_a), veh/h	438	3548	0	256	1593	1668	0	722	0	587	0	523
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(l)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	5.8	0.0	27.4	5.3	5.3	0.0	0.0	0.0	22.7	0.0	23.4
Incr Delay (d2), s/veh	9.0	0.4	0.0	46.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	1.4
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	1.5	3.6	0.0	0.1	1.0	1.0	0.0	0.0	0.0	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	6.2	0.0	73.8	5.4	5.4	0.0	0.0	0.0	22.8	0.0	24.8
LnGrp LOS	C	A	A	E	A	A	A	A	A	C	A	C
Approach Vol, veh/h		1735			497			0				55
Approach Delay, s/veh		7.8			5.6			0.0				24.6
Approach LOS		A			A							C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		0.0	4.6	40.8		9.5	8.5	36.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.2	7.9	54.8		18.1	13.5	49.2				
Max Q Clear Time (g_c+I1), s		0.0	2.0	17.8		3.6	5.0	5.6				
Green Ext Time (p_c), s		0.0	0.0	18.5		0.2	0.1	3.3				
Intersection Summary												
HCM 6th Ctrl Delay				7.7								
HCM 6th LOS				A								

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.954			0.986			0.974			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3376	0	1770	3490	0	1770	3447	0	1770	3387	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3376	0	1770	3490	0	1770	3447	0	1770	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		100			14			21			61	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

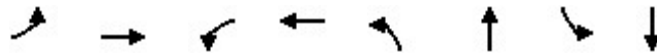
Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	125	1032	453	14	354	38	113	95	20	101	277	113
Future Volume (vph)	125	1032	453	14	354	38	113	95	20	101	277	113
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	129	1064	467	14	365	39	116	98	21	104	286	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	1531	0	14	404	0	116	119	0	104	402	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	125	1032	14	354	113	95	101	277
Future Volume (vph)	125	1032	14	354	113	95	101	277
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	19.4	45.0	9.6	35.2	12.4	24.2	11.2	23.0
Total Split (%)	21.6%	50.0%	10.7%	39.1%	13.8%	26.9%	12.4%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	11.0	40.6	5.1	26.8	7.8	19.7	6.7	18.6
Actuated g/C Ratio	0.13	0.49	0.06	0.33	0.09	0.24	0.08	0.23
v/c Ratio	0.55	0.89	0.13	0.35	0.69	0.14	0.72	0.49
Control Delay	42.3	26.6	40.8	21.8	59.6	21.5	66.9	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	26.6	40.8	21.8	59.6	21.5	66.9	26.3
LOS	D	C	D	C	E	C	E	C
Approach Delay		27.8		22.5		40.3		34.6
Approach LOS		C		C		D		C

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 82.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 79.7%	ICU Level of Service D
Analysis Period (min) 15	

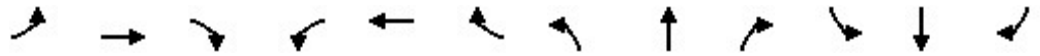
Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway
































Skyline Village Commercial Center TIA

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	1032	453	14	354	38	113	95	20	101	277	113
Future Volume (veh/h)	125	1032	453	14	354	38	113	95	20	101	277	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	1064	467	14	365	39	116	98	21	104	286	116
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1138	488	29	1279	136	146	673	140	132	551	218
Arrive On Green	0.09	0.47	0.47	0.02	0.39	0.39	0.08	0.23	0.23	0.07	0.22	0.22
Sat Flow, veh/h	1781	2423	1038	1781	3241	344	1781	2927	610	1781	2485	985
Grp Volume(v), veh/h	129	773	758	14	199	205	116	58	61	104	203	199
Grp Sat Flow(s),veh/h/ln	1781	1777	1684	1781	1777	1808	1781	1777	1761	1781	1777	1693
Q Serve(g_s), s	6.1	35.0	37.2	0.7	6.5	6.6	5.5	2.2	2.4	4.9	8.6	8.9
Cycle Q Clear(g_c), s	6.1	35.0	37.2	0.7	6.5	6.6	5.5	2.2	2.4	4.9	8.6	8.9
Prop In Lane	1.00		0.62	1.00		0.19	1.00		0.35	1.00		0.58
Lane Grp Cap(c), veh/h	163	835	791	29	701	714	146	408	404	132	394	376
V/C Ratio(X)	0.79	0.93	0.96	0.48	0.28	0.29	0.80	0.14	0.15	0.79	0.51	0.53
Avail Cap(c_a), veh/h	310	839	795	106	701	714	164	408	404	139	394	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	21.3	21.9	41.8	17.7	17.7	38.7	26.3	26.3	39.0	29.3	29.4
Incr Delay (d2), s/veh	8.3	16.0	22.1	11.4	0.2	0.2	21.1	0.7	0.8	24.6	4.7	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	3.0	17.1	18.3	0.4	2.6	2.7	3.2	1.0	1.1	3.0	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	37.4	44.0	53.2	17.9	17.9	59.7	27.0	27.1	63.6	34.0	34.7
LnGrp LOS	D	D	D	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		1660			418			235			506	
Approach Delay, s/veh		41.1			19.1			43.2			40.4	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	24.2	5.9	44.8	11.5	23.5	12.4	38.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.7	19.7	5.1	40.5	7.9	18.5	14.9	30.7				
Max Q Clear Time (g_c+I1), s	6.9	4.4	2.7	39.2	7.5	10.9	8.1	8.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.1	0.0	1.4	0.2	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				37.9								
HCM 6th LOS				D								

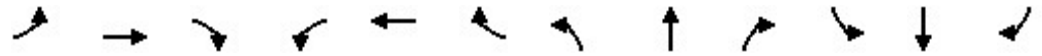
Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	  	 	 	 	 	 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			149			205			89
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	47	220	58	311	425	143	107	266	93	209	1161	86
Future Volume (vph)	47	220	58	311	425	143	107	266	93	209	1161	86
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	49	229	60	324	443	149	111	277	97	218	1209	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	229	60	324	443	149	111	277	97	218	1209	90
Intersection Summary												

Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	220	58	311	425	143	107	266	93	209	1161	86
Future Volume (vph)	47	220	58	311	425	143	107	266	93	209	1161	86
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	9.6	22.5	22.5	13.1	26.0	14.3	9.5	30.1	30.1	14.3	34.9	9.6
Total Split (%)	12.0%	28.1%	28.1%	16.4%	32.5%	17.9%	11.9%	37.6%	37.6%	17.9%	43.6%	12.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.1	11.1	11.1	8.6	16.7	30.3	5.0	25.9	25.9	9.0	32.0	41.6
Actuated g/C Ratio	0.07	0.15	0.15	0.12	0.23	0.42	0.07	0.36	0.36	0.12	0.44	0.57
v/c Ratio	0.20	0.42	0.14	0.80	0.54	0.20	0.47	0.22	0.14	0.51	0.78	0.10
Control Delay	35.6	30.2	0.7	48.6	28.2	3.4	40.7	17.8	0.4	35.0	23.5	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	30.2	0.7	48.6	28.2	3.4	40.7	17.8	0.4	35.0	23.5	2.7
LOS	D	C	A	D	C	A	D	B	A	D	C	A
Approach Delay		25.7			31.4			19.6			23.9	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 72.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.6

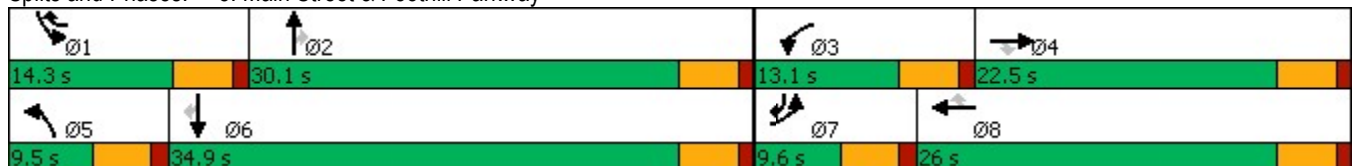
Intersection LOS: C

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15
































Splits and Phases: 8: Main Street & Foothill Parkway



HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

Skyline Village Commercial Center TIA

04/22/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 			 	 		 	 		 	 	
Traffic Volume (veh/h)	47	220	58	311	425	143	107	266	93	209	1161	86
Future Volume (veh/h)	47	220	58	311	425	143	107	266	93	209	1161	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	229	60	324	443	149	111	277	97	218	1209	90
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	385	172	417	656	439	222	1478	659	319	1578	774
Arrive On Green	0.04	0.11	0.11	0.12	0.18	0.18	0.06	0.42	0.42	0.09	0.44	0.44
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	49	229	60	324	443	149	111	277	97	218	1209	90
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.9	4.2	2.4	6.2	8.0	5.1	2.1	3.4	2.6	4.2	19.6	2.1
Cycle Q Clear(g_c), s	0.9	4.2	2.4	6.2	8.0	5.1	2.1	3.4	2.6	4.2	19.6	2.1
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	153	385	172	417	656	439	222	1478	659	319	1578	774
V/C Ratio(X)	0.32	0.59	0.35	0.78	0.67	0.34	0.50	0.19	0.15	0.68	0.77	0.12
Avail Cap(c_a), veh/h	257	934	417	434	1116	644	252	1478	659	495	1578	774
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(l)	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	31.7	29.1	28.3	29.2	26.0	19.8	31.0	12.7	12.4	30.1	16.0	9.5
Incr Delay (d2), s/veh	1.2	1.5	1.2	8.4	1.2	0.5	1.7	0.3	0.5	2.6	3.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	0.9	3.0	3.3	1.8	0.9	1.3	0.9	1.8	7.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	30.6	29.5	37.6	27.2	20.2	32.7	13.0	12.9	32.7	19.7	9.8
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	B	A
Approach Vol, veh/h		338			916			485			1517	
Approach Delay, s/veh		30.7			29.7			17.5			20.9	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	33.0	12.8	11.9	8.9	34.9	7.5	17.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	25.6	8.6	18.0	5.0	30.4	5.1	21.5				
Max Q Clear Time (g_c+I1), s	6.2	5.4	8.2	6.2	4.1	21.6	2.9	10.0				
Green Ext Time (p_c), s	0.2	2.0	0.1	1.2	0.0	5.5	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				23.9								
HCM 6th LOS				C								

Lanes and Geometrics
 9: Fullerton Avenue & Foothill Parkway

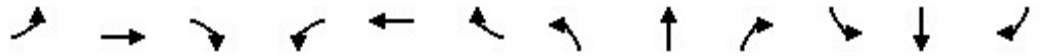


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.961				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			205			47			205
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	98	1241	127	45	438	34	37	129	46	119	236	54
Future Volume (vph)	98	1241	127	45	438	34	37	129	46	119	236	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	101	1279	131	46	452	35	38	133	47	123	243	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	1279	131	46	452	35	38	180	0	123	243	56
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↗	↘
Traffic Volume (vph)	98	1241	127	45	438	34	37	129	119	236	54
Future Volume (vph)	98	1241	127	45	438	34	37	129	119	236	54
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	14.8	36.0	36.0	9.5	30.7	30.7	10.6	23.4	11.1	23.9	23.9
Total Split (%)	18.5%	45.0%	45.0%	11.9%	38.4%	38.4%	13.3%	29.3%	13.9%	29.9%	29.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.8	31.0	31.0	5.0	25.4	25.4	6.0	19.0	6.6	24.2	24.2
Actuated g/C Ratio	0.12	0.41	0.41	0.07	0.34	0.34	0.08	0.25	0.09	0.32	0.32
v/c Ratio	0.49	0.88	0.18	0.39	0.38	0.05	0.27	0.20	0.79	0.41	0.09
Control Delay	40.8	30.4	3.3	45.9	21.1	0.1	39.8	18.2	71.6	26.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	30.4	3.3	45.9	21.1	0.1	39.8	18.2	71.6	26.1	0.3
LOS	D	C	A	D	C	A	D	B	E	C	A
Approach Delay		28.8			21.9			21.9		35.9	
Approach LOS		C			C			C		D	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 75.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 28.0

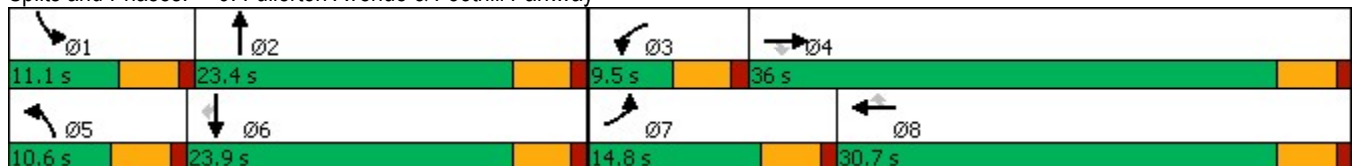
Intersection LOS: C

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway

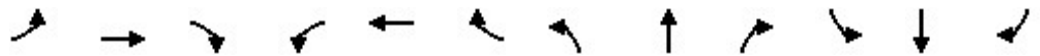


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	1241	127	45	438	34	37	129	46	119	236	54
Future Volume (veh/h)	98	1241	127	45	438	34	37	129	46	119	236	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	1279	131	46	452	35	38	133	47	123	243	56
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1411	629	72	1295	578	64	636	216	152	549	465
Arrive On Green	0.07	0.40	0.40	0.04	0.36	0.36	0.04	0.24	0.24	0.09	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2603	885	1781	1870	1585
Grp Volume(v), veh/h	101	1279	131	46	452	35	38	89	91	123	243	56
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1711	1781	1870	1585
Q Serve(g_s), s	4.3	26.2	4.2	2.0	7.2	1.1	1.6	3.1	3.3	5.2	8.2	2.0
Cycle Q Clear(g_c), s	4.3	26.2	4.2	2.0	7.2	1.1	1.6	3.1	3.3	5.2	8.2	2.0
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	130	1411	629	72	1295	578	64	434	418	152	549	465
V/C Ratio(X)	0.78	0.91	0.21	0.64	0.35	0.06	0.59	0.21	0.22	0.81	0.44	0.12
Avail Cap(c_a), veh/h	237	1448	646	115	1295	578	141	434	418	152	549	465
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(l)	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	35.2	22.0	15.3	36.5	17.9	16.0	36.7	23.2	23.3	34.7	22.2	20.0
Incr Delay (d2), s/veh	9.5	8.4	0.2	8.9	0.2	0.0	8.4	1.1	1.2	26.8	2.6	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	2.2	11.7	1.5	1.0	2.8	0.4	0.8	1.4	1.4	3.3	3.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	30.4	15.5	45.5	18.1	16.0	45.1	24.3	24.5	61.5	24.7	20.5
LnGrp LOS	D	C	B	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1511			533			218			422	
Approach Delay, s/veh		30.1			20.3			28.0			34.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	23.4	7.6	35.2	7.3	27.2	10.2	32.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	18.9	5.0	31.5	6.1	19.4	10.3	26.2				
Max Q Clear Time (g_c+I1), s	7.2	5.3	4.0	28.2	3.6	10.2	6.3	9.2				
Green Ext Time (p_c), s	0.0	0.8	0.0	2.5	0.0	1.0	0.1	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				28.7								
HCM 6th LOS				C								

Appendix E

Project Opening Year (2022) with Background Traffic
and Proposed Project Conditions
Intersection Analysis Worksheets

Lanes and Geometrics
1: Serfas Club Drive & Green River Road

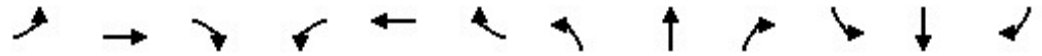


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.961			0.946				0.850
Flt Protected	0.950			0.950				0.999		0.950	0.961	
Satd. Flow (prot)	3433	3536	0	1770	3401	0	0	1760	0	1681	1701	1583
Flt Permitted	0.950			0.950				0.653		0.950	0.961	
Satd. Flow (perm)	3433	3536	0	1770	3401	0	0	1151	0	1681	1701	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			54			22				130
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	293	501	3	16	1173	416	1	40	27	58	6	114
Future Volume (vph)	293	501	3	16	1173	416	1	40	27	58	6	114
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	333	569	3	18	1333	473	1	45	31	66	7	130
Shared Lane Traffic (%)										45%		
Lane Group Flow (vph)	333	572	0	18	1806	0	0	77	0	36	37	130
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

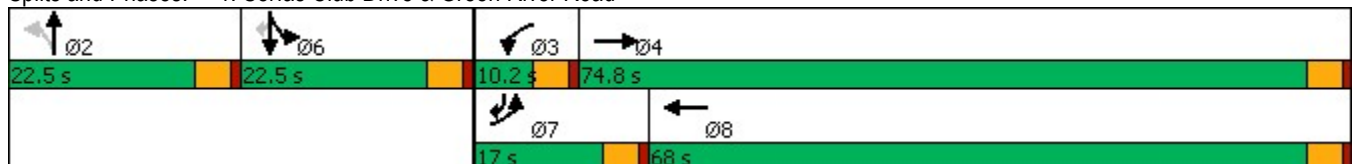


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	293	501	16	1173	1	40	58	6	114
Future Volume (vph)	293	501	16	1173	1	40	58	6	114
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	17.0	74.8	10.2	68.0	22.5	22.5	22.5	22.5	17.0
Total Split (%)	13.1%	57.5%	7.8%	52.3%	17.3%	17.3%	17.3%	17.3%	13.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	12.5	76.7	5.7	63.6		18.0	8.0	8.0	22.9
Actuated g/C Ratio	0.11	0.65	0.05	0.54		0.15	0.07	0.07	0.19
v/c Ratio	0.91	0.25	0.21	0.97		0.40	0.32	0.32	0.32
Control Delay	83.1	10.2	62.0	42.0		41.1	60.5	60.6	8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	83.1	10.2	62.0	42.0		41.1	60.5	60.6	8.7
LOS	F	B	E	D		D	E	E	A
Approach Delay		37.0		42.2		41.1		27.4	
Approach LOS		D		D		D		C	





















Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 118.1
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 39.6
 Intersection LOS: D
 Intersection Capacity Utilization 73.8%
 ICU Level of Service D
 Analysis Period (min) 15

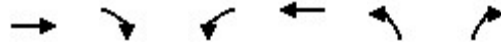
Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	501	3	16	1173	416	1	40	27	58	6	114
Future Volume (veh/h)	293	501	3	16	1173	416	1	40	27	58	6	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	569	3	18	1333	473	1	45	31	71	0	130
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	2168	11	33	1342	456	3	149	102	325	0	305
Arrive On Green	0.10	0.60	0.60	0.02	0.52	0.52	0.15	0.15	0.15	0.09	0.00	0.09
Sat Flow, veh/h	3456	3625	19	1781	2604	884	23	1019	702	3563	0	1585
Grp Volume(v), veh/h	333	279	293	18	891	915	77	0	0	71	0	130
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1711	1743	0	0	1781	0	1585
Q Serve(g_s), s	11.8	9.2	9.2	1.2	60.1	63.5	4.9	0.0	0.0	2.3	0.0	8.9
Cycle Q Clear(g_c), s	11.8	9.2	9.2	1.2	60.1	63.5	4.9	0.0	0.0	2.3	0.0	8.9
Prop In Lane	1.00		0.01	1.00		0.52	0.01		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	351	1063	1117	33	916	882	255	0	0	325	0	305
V/C Ratio(X)	0.95	0.26	0.26	0.54	0.97	1.04	0.30	0.00	0.00	0.22	0.00	0.43
Avail Cap(c_a), veh/h	351	1063	1117	82	916	882	255	0	0	520	0	392
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	11.8	11.8	59.9	29.0	29.9	47.0	0.0	0.0	51.9	0.0	43.8
Incr Delay (d2), s/veh	35.1	0.1	0.1	13.0	23.3	40.5	3.0	0.0	0.0	0.3	0.0	0.9
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	6.8	3.6	3.8	0.7	30.4	34.9	2.3	0.0	0.0	1.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.1	11.9	11.9	72.9	52.3	70.4	50.0	0.0	0.0	52.3	0.0	44.7
LnGrp LOS	F	B	B	E	D	F	D	A	A	D	A	D
Approach Vol, veh/h		905			1824			77				201
Approach Delay, s/veh		40.7			61.6			50.0				47.4
Approach LOS		D			E			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	6.8	78.2		15.7	17.0	68.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.7	70.3		18.0	12.5	63.5				
Max Q Clear Time (g_c+I1), s		6.9	3.2	11.2		10.9	13.8	65.5				
Green Ext Time (p_c), s		0.2	0.0	3.9		0.3	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			54.1									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road

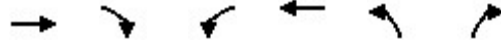


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3511	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3511	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	10					47
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

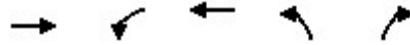
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	531	28	19	1464	96	41
Future Volume (vph)	531	28	19	1464	96	41
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	603	32	22	1664	109	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	635	0	22	1664	109	47
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road

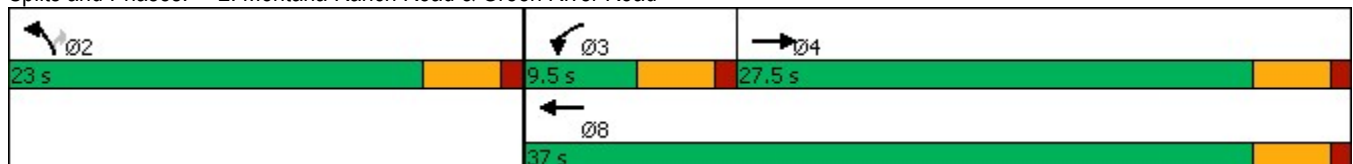


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	531	19	1464	96	41
Future Volume (vph)	531	19	1464	96	41
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	27.5	9.5	37.0	23.0	23.0
Total Split (%)	45.8%	15.8%	61.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	30.3	5.0	32.2	18.5	18.5
Actuated g/C Ratio	0.51	0.08	0.54	0.31	0.31
v/c Ratio	0.36	0.15	0.87	0.20	0.09
Control Delay	10.1	28.1	18.8	16.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	28.1	18.8	16.5	5.9
LOS	B	C	B	B	A
Approach Delay	10.1		19.0	13.3	
Approach LOS	B		B	B	

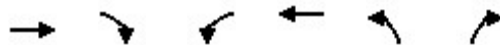
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 59.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 16.3
 Intersection LOS: B
 Intersection Capacity Utilization 53.3%
 ICU Level of Service A
 Analysis Period (min) 15

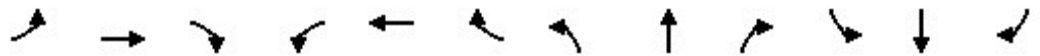
Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙	↗
Traffic Volume (veh/h)	531	28	19	1464	96	41
Future Volume (veh/h)	531	28	19	1464	96	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	603	32	22	1664	109	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1476	78	46	1891	561	499
Arrive On Green	0.43	0.43	0.03	0.53	0.31	0.31
Sat Flow, veh/h	3526	182	1781	3647	1781	1585
Grp Volume(v), veh/h	312	323	22	1664	109	47
Grp Sat Flow(s),veh/h/ln	1777	1838	1781	1777	1781	1585
Q Serve(g_s), s	7.1	7.2	0.7	24.2	2.6	1.2
Cycle Q Clear(g_c), s	7.1	7.2	0.7	24.2	2.6	1.2
Prop In Lane		0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	764	790	46	1891	561	499
V/C Ratio(X)	0.41	0.41	0.48	0.88	0.19	0.09
Avail Cap(c_a), veh/h	764	790	151	1965	561	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	11.6	28.3	12.1	14.7	14.2
Incr Delay (d2), s/veh	0.4	0.3	7.6	4.9	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.6	0.4	8.7	1.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	11.9	35.9	17.0	15.5	14.6
LnGrp LOS	B	B	D	B	B	B
Approach Vol, veh/h	635			1686	156	
Approach Delay, s/veh	11.9			17.2	15.2	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.0	6.0	29.8		35.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.5	5.0	23.0		32.5
Max Q Clear Time (g_c+I1), s		4.6	2.7	9.2		26.2
Green Ext Time (p_c), s		0.3	0.0	3.3		5.1
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			



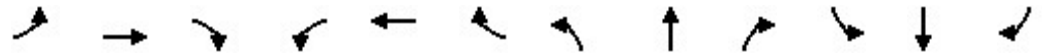
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.997			0.931				0.949
Flt Protected	0.950			0.950				0.976				0.970
Satd. Flow (prot)	1770	3507	0	1770	3529	0	0	1693	0	0	1715	0
Flt Permitted	0.950			0.950				0.832				0.793
Satd. Flow (perm)	1770	3507	0	1770	3529	0	0	1443	0	0	1402	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			87				87
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

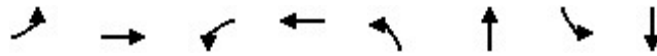
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	16	538	33	31	1404	30	71	0	75	31	0	19
Future Volume (vph)	16	538	33	31	1404	30	71	0	75	31	0	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	604	37	35	1578	34	80	0	84	35	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	641	0	35	1612	0	0	164	0	0	56	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road

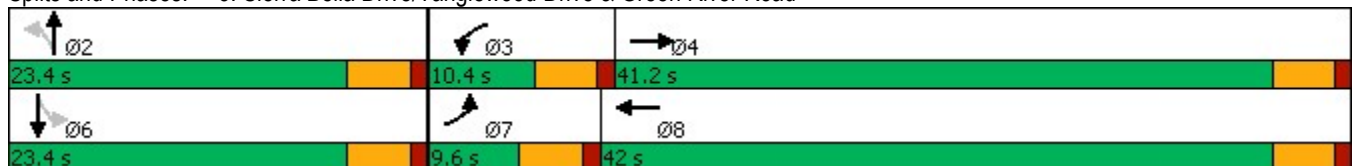


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗		↗		↗
Traffic Volume (vph)	16	538	31	1404	71	0	31	0
Future Volume (vph)	16	538	31	1404	71	0	31	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	41.2	10.4	42.0	23.4	23.4	23.4	23.4
Total Split (%)	12.8%	54.9%	13.9%	56.0%	31.2%	31.2%	31.2%	31.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.1	34.3	5.8	36.6		19.0		19.0
Actuated g/C Ratio	0.08	0.52	0.09	0.55		0.29		0.29
v/c Ratio	0.13	0.35	0.23	0.83		0.35		0.12
Control Delay	32.9	10.7	33.7	18.0		12.9		3.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	32.9	10.7	33.7	18.0		12.9		3.1
LOS	C	B	C	B		B		A
Approach Delay		11.3		18.3		12.9		3.1
Approach LOS		B		B		B		A

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 66.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 15.8
 Intersection LOS: B
 Intersection Capacity Utilization 56.7%
 ICU Level of Service B
 Analysis Period (min) 15

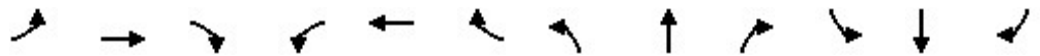
Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road



HCM 6th Signalized Intersection Summary
 3: Sierra Bella Drive/Tanglewood Drive & Green River Road


























Skyline Village Commercial Center TIA

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	538	33	31	1404	30	71	0	75	31	0	19
Future Volume (veh/h)	16	538	33	31	1404	30	71	0	75	31	0	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	604	37	35	1578	34	80	0	84	35	0	21
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	1689	103	63	1817	39	253	25	211	320	19	153
Arrive On Green	0.02	0.50	0.50	0.04	0.51	0.51	0.27	0.00	0.27	0.27	0.00	0.27
Sat Flow, veh/h	1781	3402	208	1781	3557	77	644	93	773	863	70	559
Grp Volume(v), veh/h	18	315	326	35	787	825	164	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1833	1781	1777	1857	1509	0	0	1492	0	0
Q Serve(g_s), s	0.7	7.5	7.5	1.3	26.9	27.1	3.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	7.5	7.5	1.3	26.9	27.1	5.9	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.04	0.49		0.51	0.62		0.37
Lane Grp Cap(c), veh/h	38	882	910	63	907	948	490	0	0	492	0	0
V/C Ratio(X)	0.48	0.36	0.36	0.56	0.87	0.87	0.33	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	131	942	972	152	963	1006	490	0	0	492	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(l)	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	33.5	10.7	10.7	32.8	14.9	14.9	20.3	0.0	0.0	18.9	0.0	0.0
Incr Delay (d2), s/veh	9.1	0.2	0.2	7.4	8.1	8.0	1.8	0.0	0.0	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	0.4	2.7	2.7	0.7	11.3	11.8	2.3	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	10.9	10.9	40.3	23.0	22.9	22.2	0.0	0.0	19.4	0.0	0.0
LnGrp LOS	D	B	B	D	C	C	C	A	A	B	A	A
Approach Vol, veh/h		659			1647			164				56
Approach Delay, s/veh		11.8			23.3			22.2				19.4
Approach LOS		B			C			C				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	6.9	38.9		23.4	6.0	39.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.9	5.9	36.7		18.9	5.1	37.5				
Max Q Clear Time (g_c+I1), s		7.9	3.3	9.5		3.7	2.7	29.1				
Green Ext Time (p_c), s		0.6	0.0	4.2		0.2	0.0	6.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.2								
HCM 6th LOS				C								

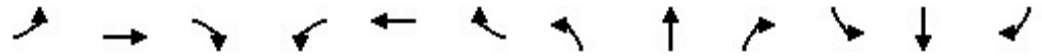
Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.851	0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	3539	0	1863	3539	1583	0	1863	0	1770	1506	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						115						187
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1015			1166			201			285	
Travel Time (s)		23.1			26.5			4.6			6.5	

Intersection Summary

Area Type: Other

Volume
4: Paseo Grande & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	282	351	0	0	1106	83	0	0	0	49	1	329
Future Volume (vph)	282	351	0	0	1106	83	0	0	0	49	1	329
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	320	399	0	0	1257	94	0	0	0	56	1	374
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	320	399	0	0	1257	94	0	0	0	56	188	187
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

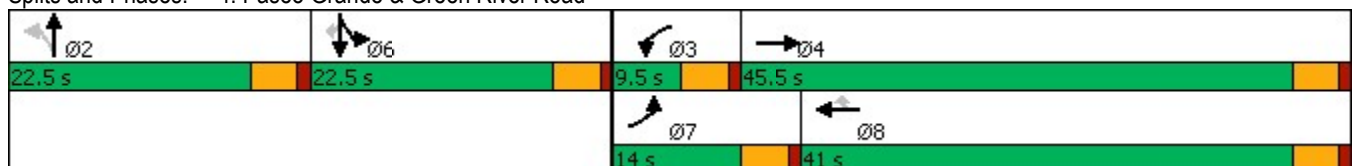


Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR	Ø2	Ø3
Lane Configurations	↖↗	↕	↕	↖	↖	↕	↖		
Traffic Volume (vph)	282	351	1106	83	49	1	329		
Future Volume (vph)	282	351	1106	83	49	1	329		
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm		
Protected Phases	7	4	8		6	6		2	3
Permitted Phases				8			6		
Detector Phase	7	4	8	8	6	6	6		
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	45.5	41.0	41.0	22.5	22.5	22.5	22.5	9.5
Total Split (%)	14.0%	45.5%	41.0%	41.0%	22.5%	22.5%	22.5%	23%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lead/Lag	Lead	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	Max	Max	None
Act Effct Green (s)	9.5	50.5	36.5	36.5	18.0	18.0	18.0		
Actuated g/C Ratio	0.10	0.50	0.36	0.36	0.18	0.18	0.18		
v/c Ratio	0.98	0.22	0.97	0.14	0.18	0.44	0.44		
Control Delay	91.9	14.2	51.6	3.3	36.5	9.1	9.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	91.9	14.2	51.6	3.3	36.5	9.1	9.0		
LOS	F	B	D	A	D	A	A		
Approach Delay		48.8	48.2			12.6			
Approach LOS		D	D			B			

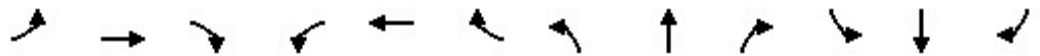
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 42.3
 Intersection LOS: D
 Intersection Capacity Utilization 56.7%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↕		↖	↕	↗		↕		↖	↕	↗
Traffic Volume (veh/h)	282	351	0	0	1106	83	0	0	0	49	1	329
Future Volume (veh/h)	282	351	0	0	1106	83	0	0	0	49	1	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	399	0	0	1257	94	0	0	0	56	0	375
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	1795	0	2	1297	579	0	337	0	321	0	571
Arrive On Green	0.09	0.50	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	3456	3647	0	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	320	399	0	0	1257	94	0	0	0	56	0	375
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	9.2	6.3	0.0	0.0	34.8	4.0	0.0	0.0	0.0	2.7	0.0	11.0
Cycle Q Clear(g_c), s	9.2	6.3	0.0	0.0	34.8	4.0	0.0	0.0	0.0	2.7	0.0	11.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1795	0	2	1297	579	0	337	0	321	0	571
V/C Ratio(X)	0.97	0.22	0.00	0.00	0.97	0.16	0.00	0.00	0.00	0.17	0.00	0.66
Avail Cap(c_a), veh/h	328	1795	0	89	1297	579	0	337	0	321	0	571
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(l)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.1	13.8	0.0	0.0	31.2	21.4	0.0	0.0	0.0	34.7	0.0	38.1
Incr Delay (d2), s/veh	42.7	0.1	0.0	0.0	18.0	0.1	0.0	0.0	0.0	1.2	0.0	5.8
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	5.9	2.5	0.0	0.0	17.6	1.5	0.0	0.0	0.0	1.3	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.8	13.9	0.0	0.0	49.2	21.6	0.0	0.0	0.0	35.9	0.0	44.0
LnGrp LOS	F	B	A	A	D	C	A	A	A	D	A	D
Approach Vol, veh/h		719			1351			0				431
Approach Delay, s/veh		46.8			47.3			0.0				42.9
Approach LOS		D			D							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	0.0	55.0		22.5	14.0	41.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	5.0	41.0		18.0	9.5	36.5				
Max Q Clear Time (g_c+I1), s		0.0	0.0	8.3		13.0	11.2	36.8				
Green Ext Time (p_c), s		0.0	0.0	2.9		0.8	0.0	0.0				

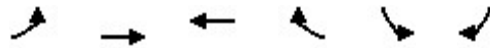
Intersection Summary

HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue

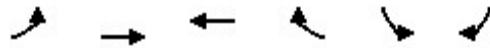


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.997			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3529	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3529	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			4			50
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

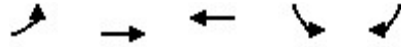
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	18	404	1044	22	28	47
Future Volume (vph)	18	404	1044	22	28	47
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	19	430	1111	23	30	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	430	1134	0	30	50
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

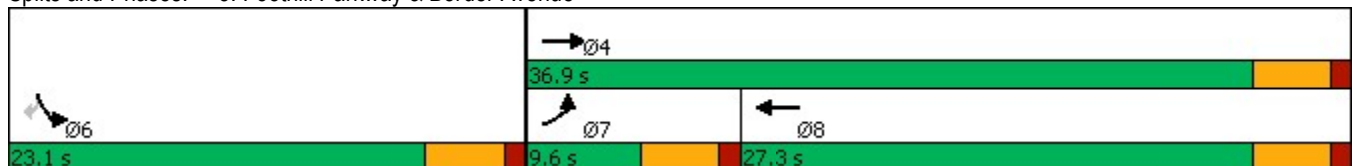


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↑↑	↑↑↔	↖	↖
Traffic Volume (vph)	18	404	1044	28	47
Future Volume (vph)	18	404	1044	28	47
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	36.9	27.3	23.1	23.1
Total Split (%)	16.0%	61.5%	45.5%	38.5%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	5.1	23.4	21.7	18.8	18.8
Actuated g/C Ratio	0.10	0.46	0.42	0.37	0.37
v/c Ratio	0.11	0.27	0.76	0.05	0.08
Control Delay	24.7	8.8	17.6	12.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	8.8	17.6	12.7	5.3
LOS	C	A	B	B	A
Approach Delay		9.5	17.6	8.1	
Approach LOS		A	B	A	

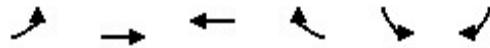
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 51.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 14.9
 Intersection LOS: B
 Intersection Capacity Utilization 41.2%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue


























HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↶		↶	↷	
Traffic Volume (veh/h)	18	404	1044	22	28	47	
Future Volume (veh/h)	18	404	1044	22	28	47	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	19	430	1111	23	30	50	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	41	1732	1356	28	615	548	
Arrive On Green	0.02	0.49	0.38	0.38	0.35	0.35	
Sat Flow, veh/h	1781	3647	3654	74	1781	1585	
Grp Volume(v), veh/h	19	430	554	580	30	50	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1857	1781	1585	
Q Serve(g_s), s	0.6	3.8	15.1	15.1	0.6	1.1	
Cycle Q Clear(g_c), s	0.6	3.8	15.1	15.1	0.6	1.1	
Prop In Lane	1.00			0.04	1.00	1.00	
Lane Grp Cap(c), veh/h	41	1732	677	707	615	548	
V/C Ratio(X)	0.46	0.25	0.82	0.82	0.05	0.09	
Avail Cap(c_a), veh/h	169	2139	753	787	615	548	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.0	8.0	15.0	15.0	11.7	11.9	
Incr Delay (d2), s/veh	8.0	0.1	6.6	6.3	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	1.2	6.4	6.6	0.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.9	8.1	21.6	21.3	11.9	12.2	
LnGrp LOS	C	A	C	C	B	B	
Approach Vol, veh/h		449	1134		80		
Approach Delay, s/veh		9.2	21.4		12.1		
Approach LOS		A	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				30.7	23.1	5.7	25.0
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.4	18.6	5.1	22.8
Max Q Clear Time (g_c+I1), s				5.8	3.1	2.6	17.1
Green Ext Time (p_c), s				3.0	0.2	0.0	3.4
Intersection Summary							
HCM 6th Ctrl Delay			17.7				
HCM 6th LOS			B				

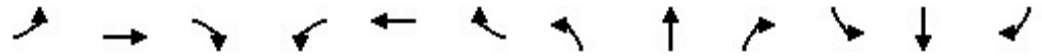
Lanes and Geometrics
6: Chase Drive & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999			0.920				0.850
Flt Protected	0.950			0.950				0.980		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	0	1679	0	1770	1583	0
Flt Permitted	0.950			0.950				0.200		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3536	0	0	343	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136					68				545
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

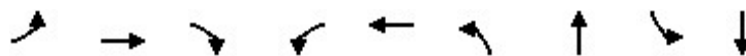
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	12	384	53	82	941	5	53	1	79	11	0	91
Future Volume (vph)	12	384	53	82	941	5	53	1	79	11	0	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	13	417	58	89	1023	5	58	1	86	12	0	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	417	58	89	1028	0	0	145	0	12	99	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

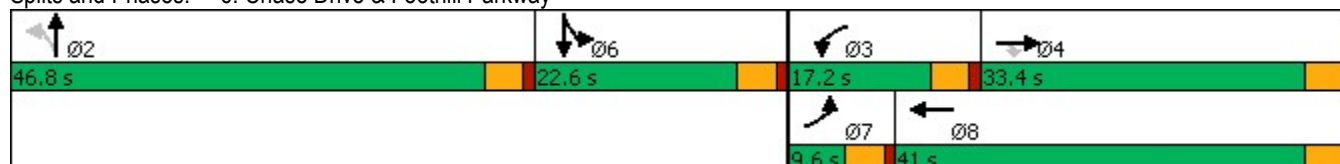


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗		↕	↖	↗
Traffic Volume (vph)	12	384	53	82	941	53	1	11	0
Future Volume (vph)	12	384	53	82	941	53	1	11	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Split	NA
Protected Phases	7	4		3	8		2	6	6
Permitted Phases			4			2			
Detector Phase	7	4	4	3	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	33.4	33.4	17.2	41.0	46.8	46.8	22.6	22.6
Total Split (%)	8.0%	27.8%	27.8%	14.3%	34.2%	39.0%	39.0%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.1	25.0	25.0	10.1	35.5		42.4	6.3	6.3
Actuated g/C Ratio	0.05	0.25	0.25	0.10	0.36		0.43	0.06	0.06
v/c Ratio	0.14	0.47	0.12	0.50	0.82		0.78	0.11	0.16
Control Delay	51.2	34.9	0.5	52.8	35.9		45.4	47.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	51.2	34.9	0.5	52.8	35.9		45.4	47.9	0.6
LOS	D	C	A	D	D		D	D	A
Approach Delay		31.2			37.2		45.4		5.7
Approach LOS		C			D		D		A

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 99.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 56.1%	ICU Level of Service B
Analysis Period (min) 15	





















Splits and Phases: 6: Chase Drive & Foothill Parkway



HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway

Skyline Village Commercial Center TIA

04/22/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	384	53	82	941	5	53	1	79	11	0	91
Future Volume (veh/h)	12	384	53	82	941	5	53	1	79	11	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	417	58	89	1023	5	58	1	86	12	0	99
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1254	559	122	1468	7	91	2	135	186	0	166
Arrive On Green	0.02	0.35	0.35	0.07	0.40	0.40	0.14	0.14	0.14	0.10	0.00	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3626	18	664	11	985	1781	0	1585
Grp Volume(v), veh/h	13	417	58	89	501	527	145	0	0	12	0	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1660	0	0	1781	0	1585
Q Serve(g_s), s	0.4	4.6	1.3	2.6	12.5	12.5	4.4	0.0	0.0	0.3	0.0	3.2
Cycle Q Clear(g_c), s	0.4	4.6	1.3	2.6	12.5	12.5	4.4	0.0	0.0	0.3	0.0	3.2
Prop In Lane	1.00		1.00	1.00		0.01	0.40		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	29	1254	559	122	720	756	228	0	0	186	0	166
V/C Ratio(X)	0.44	0.33	0.10	0.73	0.70	0.70	0.64	0.00	0.00	0.06	0.00	0.60
Avail Cap(c_a), veh/h	170	1922	857	423	1214	1276	1314	0	0	603	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	12.7	11.6	24.4	13.2	13.2	21.8	0.0	0.0	21.6	0.0	22.8
Incr Delay (d2), s/veh	10.2	0.2	0.1	8.0	1.2	1.2	2.9	0.0	0.0	0.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.6	0.4	1.3	4.4	4.6	1.8	0.0	0.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	12.8	11.7	32.4	14.4	14.3	24.7	0.0	0.0	21.7	0.0	26.3
LnGrp LOS	D	B	B	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		488			1117			145				111
Approach Delay, s/veh		13.3			15.8			24.7				25.8
Approach LOS		B			B			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.8	8.2	23.3		10.1	5.4	26.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.3	12.7	28.9		18.1	5.1	36.5				
Max Q Clear Time (g_c+I1), s		6.4	4.6	6.6		5.2	2.4	14.5				
Green Ext Time (p_c), s		0.9	0.1	2.9		0.4	0.0	7.1				
Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.967			0.985			0.980				0.931
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3422	0	1770	3486	0	1770	3468	0	1770	3295	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3422	0	1770	3486	0	1770	3468	0	1770	3295	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			12			21			147	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

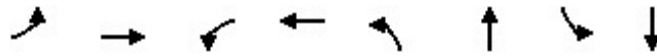
Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	147	434	124	27	626	69	271	259	40	73	154	131
Future Volume (vph)	147	434	124	27	626	69	271	259	40	73	154	131
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	165	488	139	30	703	78	304	291	45	82	173	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	627	0	30	781	0	304	336	0	82	320	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway

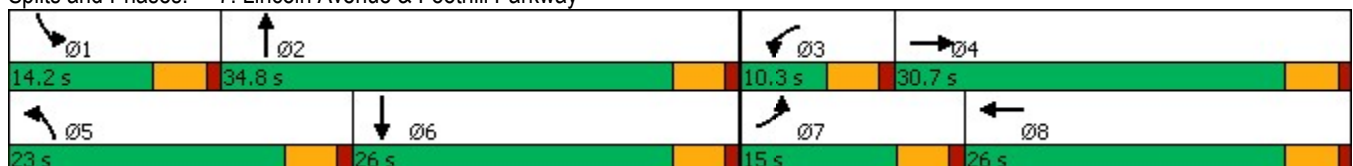


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↙	↕
Traffic Volume (vph)	147	434	27	626	271	259	73	154
Future Volume (vph)	147	434	27	626	271	259	73	154
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	15.0	30.7	10.3	26.0	23.0	34.8	14.2	26.0
Total Split (%)	16.7%	34.1%	11.4%	28.9%	25.6%	38.7%	15.8%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	10.3	30.0	5.7	21.4	17.6	32.8	8.5	21.5
Actuated g/C Ratio	0.12	0.34	0.06	0.24	0.20	0.37	0.10	0.24
v/c Ratio	0.81	0.53	0.26	0.92	0.87	0.26	0.49	0.35
Control Delay	68.4	25.2	46.1	50.7	59.6	20.1	48.1	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	25.2	46.1	50.7	59.6	20.1	48.1	16.2
LOS	E	C	D	D	E	C	D	B
Approach Delay		34.2		50.5		38.9		22.7
Approach LOS		C		D		D		C

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 88.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 38.6	Intersection LOS: D
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway






































Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	434	124	27	626	69	271	259	40	73	154	131
Future Volume (veh/h)	147	434	124	27	626	69	271	259	40	73	154	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	488	139	30	703	78	304	291	45	82	173	147
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	885	250	53	778	86	341	1174	180	106	465	371
Arrive On Green	0.11	0.32	0.32	0.03	0.24	0.24	0.19	0.38	0.38	0.06	0.25	0.25
Sat Flow, veh/h	1781	2734	774	1781	3225	358	1781	3090	472	1781	1879	1499
Grp Volume(v), veh/h	165	316	311	30	387	394	304	166	170	82	163	157
Grp Sat Flow(s),veh/h/ln	1781	1777	1731	1781	1777	1806	1781	1777	1785	1781	1777	1601
Q Serve(g_s), s	7.9	12.7	12.9	1.4	18.3	18.4	14.4	5.5	5.7	3.9	6.6	7.1
Cycle Q Clear(g_c), s	7.9	12.7	12.9	1.4	18.3	18.4	14.4	5.5	5.7	3.9	6.6	7.1
Prop In Lane	1.00		0.45	1.00		0.20	1.00		0.26	1.00		0.94
Lane Grp Cap(c), veh/h	199	575	560	53	429	436	341	675	678	106	440	397
V/C Ratio(X)	0.83	0.55	0.56	0.57	0.90	0.90	0.89	0.25	0.25	0.77	0.37	0.40
Avail Cap(c_a), veh/h	216	575	560	119	440	447	380	675	678	199	440	397
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(l)	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	37.7	24.2	24.2	41.6	31.9	31.9	34.2	18.4	18.4	40.2	27.0	27.2
Incr Delay (d2), s/veh	21.5	1.1	1.2	9.2	21.3	21.2	20.7	0.9	0.9	11.3	2.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.3	5.3	0.8	10.2	10.3	8.1	2.4	2.4	2.0	3.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	25.3	25.4	50.8	53.2	53.1	54.9	19.3	19.3	51.6	29.4	30.2
LnGrp LOS	E	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		792			811			640			402	
Approach Delay, s/veh		32.4			53.1			36.2			34.2	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	37.5	7.1	32.6	21.1	26.0	14.2	25.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	30.3	5.8	26.2	18.5	21.5	10.5	21.5				
Max Q Clear Time (g_c+I1), s	5.9	7.7	3.4	14.9	16.4	9.1	9.9	20.4				
Green Ext Time (p_c), s	0.0	1.9	0.0	3.0	0.2	1.5	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	 	 	 	 	 	 	 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			193			94			249			94
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	142	413	160	162	322	152	188	737	260	232	444	65
Future Volume (vph)	142	413	160	162	322	152	188	737	260	232	444	65
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	171	498	193	195	388	183	227	888	313	280	535	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	498	193	195	388	183	227	888	313	280	535	78
Intersection Summary												

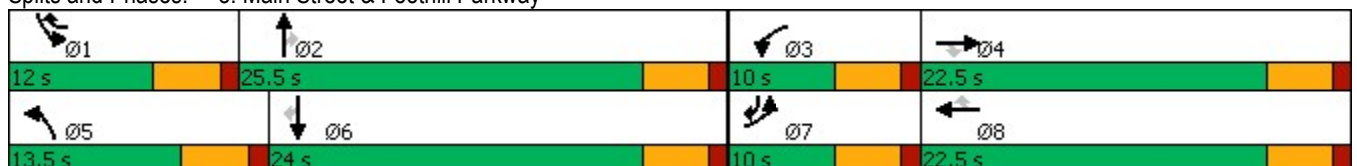
Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	413	160	162	322	152	188	737	260	232	444	65
Future Volume (vph)	142	413	160	162	322	152	188	737	260	232	444	65
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	10.0	22.5	22.5	10.0	22.5	12.0	13.5	25.5	25.5	12.0	24.0	10.0
Total Split (%)	14.3%	32.1%	32.1%	14.3%	32.1%	17.1%	19.3%	36.4%	36.4%	17.1%	34.3%	14.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.5	15.2	15.2	5.5	15.2	27.2	8.5	21.0	21.0	7.5	20.1	30.1
Actuated g/C Ratio	0.08	0.23	0.23	0.08	0.23	0.40	0.13	0.31	0.31	0.11	0.30	0.45
v/c Ratio	0.61	0.62	0.38	0.69	0.49	0.26	0.53	0.80	0.47	0.73	0.51	0.10
Control Delay	41.1	27.1	6.1	45.8	24.7	7.7	32.8	28.9	7.7	42.8	22.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	27.1	6.1	45.8	24.7	7.7	32.8	28.9	7.7	42.8	22.3	2.8
LOS	D	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		25.2			26.0			24.8			27.0	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 67.3
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 25.6
 Intersection LOS: C
 Intersection Capacity Utilization 58.0%
 ICU Level of Service B
 Analysis Period (min) 15

























Splits and Phases: 8: Main Street & Foothill Parkway






























HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

Skyline Village Commercial Center TIA

04/22/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	413	160	162	322	152	188	737	260	232	444	65
Future Volume (veh/h)	142	413	160	162	322	152	188	737	260	232	444	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	498	193	195	388	183	227	888	313	280	535	78
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	709	316	288	735	502	333	1163	519	379	1210	660
Arrive On Green	0.08	0.20	0.20	0.08	0.21	0.21	0.10	0.33	0.33	0.11	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	171	498	193	195	388	183	227	888	313	280	535	78
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.1	8.4	7.1	3.5	6.2	5.7	4.1	14.4	10.6	5.0	7.5	1.9
Cycle Q Clear(g_c), s	3.1	8.4	7.1	3.5	6.2	5.7	4.1	14.4	10.6	5.0	7.5	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	709	316	288	735	502	333	1163	519	379	1210	660
V/C Ratio(X)	0.65	0.70	0.61	0.68	0.53	0.36	0.68	0.76	0.60	0.74	0.44	0.12
Avail Cap(c_a), veh/h	296	996	444	296	996	618	484	1163	519	404	1210	660
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	28.8	23.9	23.4	28.6	22.7	16.9	28.1	19.4	18.1	27.7	16.4	11.5
Incr Delay (d2), s/veh	4.2	1.3	1.9	5.9	0.6	0.4	2.5	4.8	5.1	6.6	1.2	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	1.4	3.4	2.7	1.6	2.5	2.0	1.7	6.2	4.3	2.3	3.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	25.2	25.3	34.4	23.3	17.4	30.5	24.2	23.2	34.3	17.6	11.9
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	B	B
Approach Vol, veh/h		862			766			1428			893	
Approach Delay, s/veh		26.8			24.7			25.0			22.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	25.5	9.8	17.3	10.7	26.4	9.4	17.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	21.0	5.5	18.0	9.0	19.5	5.5	18.0				
Max Q Clear Time (g_c+I1), s	7.0	16.4	5.5	10.4	6.1	9.5	5.1	8.2				
Green Ext Time (p_c), s	0.1	2.8	0.0	2.4	0.2	2.7	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				24.7								
HCM 6th LOS				C								

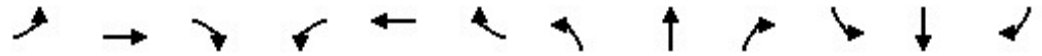
Lanes and Geometrics
9: Fullerton Avenue & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.973				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3444	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			182		31				241
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	182	696	89	59	678	86	270	312	69	53	129	220
Future Volume (vph)	182	696	89	59	678	86	270	312	69	53	129	220
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	243	928	119	79	904	115	360	416	92	71	172	293
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	928	119	79	904	115	360	508	0	71	172	293
Intersection Summary												

Timings
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↗	↘
Traffic Volume (vph)	182	696	89	59	678	86	270	312	53	129	220
Future Volume (vph)	182	696	89	59	678	86	270	312	53	129	220
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	17.0	31.5	31.5	13.0	27.5	27.5	23.0	32.5	13.0	22.5	22.5
Total Split (%)	18.9%	35.0%	35.0%	14.4%	30.6%	30.6%	25.6%	36.1%	14.4%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	12.5	29.7	29.7	7.8	23.0	23.0	18.5	30.8	7.7	18.0	18.0
Actuated g/C Ratio	0.14	0.33	0.33	0.09	0.26	0.26	0.21	0.34	0.09	0.20	0.20
v/c Ratio	0.99	0.79	0.18	0.51	1.00	0.21	0.99	0.42	0.47	0.46	0.58
Control Delay	96.7	34.7	1.6	51.2	64.8	1.8	83.1	23.6	49.2	36.4	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	34.7	1.6	51.2	64.8	1.8	83.1	23.6	49.2	36.4	12.4
LOS	F	C	A	D	E	A	F	C	D	D	B
Approach Delay		43.3			57.2			48.3		25.0	
Approach LOS		D			E			D		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 45.9

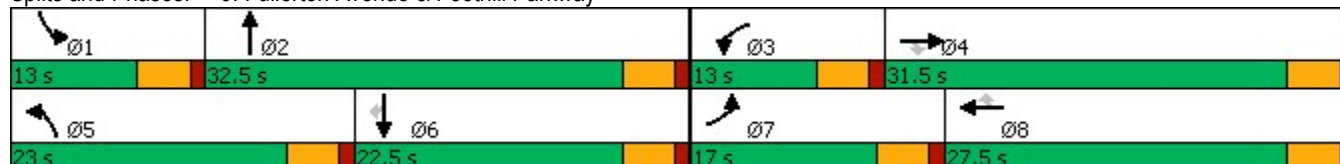
Intersection LOS: D

Intersection Capacity Utilization 65.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway

Skyline Village Commercial Center TIA
04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	696	89	59	678	86	270	312	69	53	129	220
Future Volume (veh/h)	182	696	89	59	678	86	270	312	69	53	129	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	928	119	79	904	115	360	416	92	71	172	293
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1199	535	102	908	405	366	1026	225	92	374	317
Arrive On Green	0.14	0.34	0.34	0.06	0.26	0.26	0.21	0.35	0.35	0.05	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2898	635	1781	1870	1585
Grp Volume(v), veh/h	243	928	119	79	904	115	360	254	254	71	172	293
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1756	1781	1870	1585
Q Serve(g_s), s	12.2	21.1	4.8	3.9	22.9	5.2	18.1	9.7	9.8	3.5	7.3	16.3
Cycle Q Clear(g_c), s	12.2	21.1	4.8	3.9	22.9	5.2	18.1	9.7	9.8	3.5	7.3	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	247	1199	535	102	908	405	366	629	622	92	374	317
V/C Ratio(X)	0.98	0.77	0.22	0.78	1.00	0.28	0.98	0.40	0.41	0.77	0.46	0.92
Avail Cap(c_a), veh/h	247	1199	535	168	908	405	366	629	622	168	374	317
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.7	21.4	41.9	33.4	26.9	35.6	21.9	22.0	42.2	31.7	35.3
Incr Delay (d2), s/veh	52.1	3.2	0.2	11.9	28.7	0.4	42.4	1.9	2.0	12.9	4.0	34.5
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	8.8	9.1	1.8	2.0	13.1	2.0	12.0	4.3	4.3	1.9	3.7	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.7	30.0	21.6	53.7	62.1	27.3	78.0	23.8	23.9	55.1	35.7	69.8
LnGrp LOS	F	C	C	D	E	C	E	C	C	E	D	E
Approach Vol, veh/h		1290			1098			868			536	
Approach Delay, s/veh		40.6			57.9			46.3			56.9	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	36.4	9.6	34.9	23.0	22.5	17.0	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	28.0	8.5	27.0	18.5	18.0	12.5	23.0				
Max Q Clear Time (g_c+I1), s	5.5	11.8	5.9	23.1	20.1	18.3	14.2	24.9				
Green Ext Time (p_c), s	0.0	2.8	0.0	2.3	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			49.2									
HCM 6th LOS			D									

Lanes and Geometrics
1: Serfas Club Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	115		0	0		0	230		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor												
Frt		0.999			0.965			0.955				0.850
Flt Protected	0.950			0.950				0.995		0.950	0.959	
Satd. Flow (prot)	3433	3536	0	1770	3415	0	0	1770	0	1681	1697	1583
Flt Permitted	0.950			0.950				0.581		0.950	0.959	
Satd. Flow (perm)	3433	3536	0	1770	3415	0	0	1034	0	1681	1697	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35			10				319
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1011			1088			153				632
Travel Time (s)		23.0			24.7			3.5				14.4

Intersection Summary

Area Type: Other

Volume
1: Serfas Club Drive & Green River Road

Skyline Village Commercial Center TIA

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	187	1472	7	16	493	149	3	16	10	556	47	306
Future Volume (vph)	187	1472	7	16	493	149	3	16	10	556	47	306
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	195	1533	7	17	514	155	3	17	10	579	49	319
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	195	1540	0	17	669	0	0	30	0	313	315	319
Intersection Summary												

Timings

1: Serfas Club Drive & Green River Road

04/22/2021

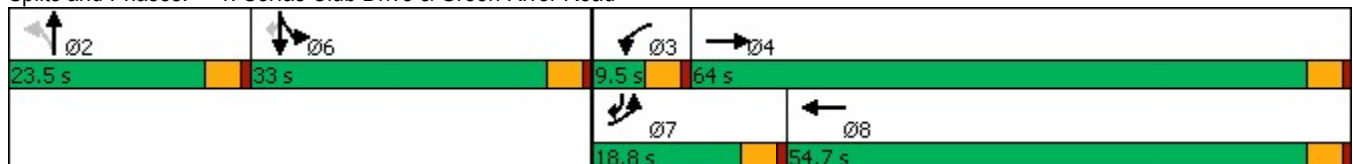


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖↗	↕	↖	↕		↕	↖	↕	↗
Traffic Volume (vph)	187	1472	16	493	3	16	556	47	306
Future Volume (vph)	187	1472	16	493	3	16	556	47	306
Turn Type	Prot	NA	Prot	NA	Perm	NA	Split	NA	pm+ov
Protected Phases	7	4	3	8		2	6	6	7
Permitted Phases					2				6
Detector Phase	7	4	3	8	2	2	6	6	7
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	18.8	64.0	9.5	54.7	23.5	23.5	33.0	33.0	18.8
Total Split (%)	14.5%	49.2%	7.3%	42.1%	18.1%	18.1%	25.4%	25.4%	14.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	11.9	57.5	5.0	44.6		19.2	26.0	26.0	42.4
Actuated g/C Ratio	0.10	0.48	0.04	0.37		0.16	0.22	0.22	0.35
v/c Ratio	0.58	0.91	0.23	0.52		0.17	0.86	0.86	0.42
Control Delay	60.0	38.5	67.1	29.5		38.1	68.7	68.1	4.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	60.0	38.5	67.1	29.5		38.1	68.7	68.1	4.7
LOS	E	D	E	C		D	E	E	A
Approach Delay		40.9		30.5		38.1		47.0	
Approach LOS		D		C		D		D	

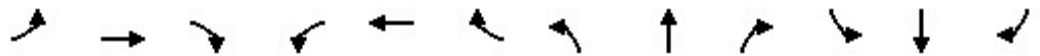
Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 119.8
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 40.5
 Intersection LOS: D
 Intersection Capacity Utilization 79.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Serfas Club Drive & Green River Road



HCM 6th Signalized Intersection Summary
1: Serfas Club Drive & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1472	7	16	493	149	3	16	10	556	47	306
Future Volume (veh/h)	187	1472	7	16	493	149	3	16	10	556	47	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	1533	7	17	514	155	3	17	10	614	0	319
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1689	8	32	1103	331	28	156	92	751	0	451
Arrive On Green	0.07	0.47	0.47	0.02	0.41	0.41	0.16	0.16	0.16	0.21	0.00	0.21
Sat Flow, veh/h	3456	3628	17	1781	2694	808	176	995	585	3563	0	1585
Grp Volume(v), veh/h	195	751	789	17	338	331	30	0	0	614	0	319
Grp Sat Flow(s),veh/h/ln	1728	1777	1867	1781	1777	1725	1756	0	0	1781	0	1585
Q Serve(g_s), s	6.7	47.3	47.4	1.1	16.8	17.0	1.8	0.0	0.0	19.9	0.0	21.8
Cycle Q Clear(g_c), s	6.7	47.3	47.4	1.1	16.8	17.0	1.8	0.0	0.0	19.9	0.0	21.8
Prop In Lane	1.00		0.01	1.00		0.47	0.10		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	256	827	870	32	728	706	276	0	0	751	0	451
V/C Ratio(X)	0.76	0.91	0.91	0.53	0.46	0.47	0.11	0.00	0.00	0.82	0.00	0.71
Avail Cap(c_a), veh/h	408	873	918	74	737	715	276	0	0	839	0	491
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.0	29.9	29.9	58.9	26.1	26.1	43.8	0.0	0.0	45.6	0.0	38.8
Incr Delay (d2), s/veh	4.6	12.7	12.3	12.9	0.5	0.5	0.8	0.0	0.0	5.8	0.0	4.2
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	3.1	22.5	23.6	0.6	7.2	7.0	0.8	0.0	0.0	9.4	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	42.6	42.2	71.9	26.5	26.6	44.6	0.0	0.0	51.4	0.0	43.0
LnGrp LOS	E	D	D	E	C	C	D	A	A	D	A	D
Approach Vol, veh/h		1735			686			30				933
Approach Delay, s/veh		44.3			27.7			44.6				48.5
Approach LOS		D			C			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	6.7	60.9		30.0	13.5	54.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.0	5.0	59.5		28.5	14.3	50.2				
Max Q Clear Time (g_c+I1), s		3.8	3.1	49.4		23.8	8.7	19.0				
Green Ext Time (p_c), s		0.1	0.0	7.0		1.7	0.3	4.7				

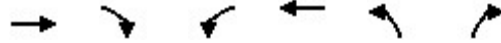
Intersection Summary

HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
 2: Montana Ranch Road & Green River Road

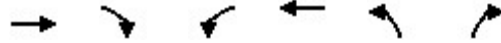


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		100	0
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3518	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3518	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	7					27
Link Speed (mph)	30			30	30	
Link Distance (ft)	1088			1288	495	
Travel Time (s)	24.7			29.3	11.3	

Intersection Summary

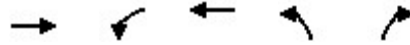
Area Type: Other

Volume
2: Montana Ranch Road & Green River Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	1910	75	16	576	35	25
Future Volume (vph)	1910	75	16	576	35	25
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2032	80	17	613	37	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2112	0	17	613	37	27
Intersection Summary						

Timings
2: Montana Ranch Road & Green River Road



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑	↑
Traffic Volume (vph)	1910	16	576	35	25
Future Volume (vph)	1910	16	576	35	25
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5
Total Split (s)	57.0	9.6	66.6	23.4	23.4
Total Split (%)	63.3%	10.7%	74.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	52.6	5.1	56.2	18.9	18.9
Actuated g/C Ratio	0.62	0.06	0.67	0.22	0.22
v/c Ratio	0.96	0.16	0.26	0.09	0.07
Control Delay	28.6	43.1	5.9	28.3	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	43.1	5.9	28.3	11.7
LOS	C	D	A	C	B
Approach Delay	28.6		6.9	21.3	
Approach LOS	C		A	C	

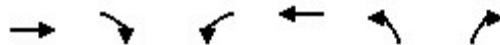
Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 84.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 23.6
 Intersection LOS: C
 Intersection Capacity Utilization 66.9%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Montana Ranch Road & Green River Road



HCM 6th Signalized Intersection Summary
2: Montana Ranch Road & Green River Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	1910	75	16	576	35	25
Future Volume (veh/h)	1910	75	16	576	35	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2032	80	17	613	37	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2112	83	35	2407	389	347
Arrive On Green	0.61	0.61	0.02	0.68	0.22	0.22
Sat Flow, veh/h	3580	136	1781	3647	1781	1585
Grp Volume(v), veh/h	1029	1083	17	613	37	27
Grp Sat Flow(s),veh/h/ln	1777	1846	1781	1777	1781	1585
Q Serve(g_s), s	46.9	48.4	0.8	5.8	1.4	1.2
Cycle Q Clear(g_c), s	46.9	48.4	0.8	5.8	1.4	1.2
Prop In Lane		0.07	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1076	1118	35	2407	389	347
V/C Ratio(X)	0.96	0.97	0.49	0.25	0.10	0.08
Avail Cap(c_a), veh/h	1079	1121	105	2553	389	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	16.3	42.0	5.4	27.0	26.8
Incr Delay (d2), s/veh	17.7	19.7	10.4	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	23.3	0.5	1.8	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.7	35.9	52.4	5.5	27.4	27.3
LnGrp LOS	C	D	D	A	C	C
Approach Vol, veh/h	2112			630	64	
Approach Delay, s/veh	34.8			6.8	27.4	
Approach LOS	C			A	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.4	6.2	56.9		63.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.9	5.1	52.5		62.1
Max Q Clear Time (g_c+I1), s		3.4	2.8	50.4		7.8
Green Ext Time (p_c), s		0.1	0.0	2.0		4.9
Intersection Summary						
HCM 6th Ctrl Delay			28.4			
HCM 6th LOS			C			



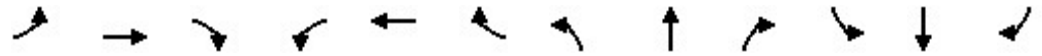
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	90		0	145		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.996			0.931				0.965
Flt Protected	0.950			0.950				0.976				0.964
Satd. Flow (prot)	1770	3518	0	1770	3525	0	0	1693	0	0	1733	0
Flt Permitted	0.950			0.950				0.853				0.816
Satd. Flow (perm)	1770	3518	0	1770	3525	0	0	1479	0	0	1467	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			6			73				73
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1288			1015			338				169
Travel Time (s)		29.3			23.1			7.7				3.8

Intersection Summary

Area Type: Other

Volume

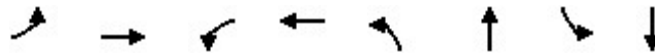
3: Sierra Bella Drive/Tanglewood Drive & Green River Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	11	1871	75	85	541	16	49	0	52	16	0	6
Future Volume (vph)	11	1871	75	85	541	16	49	0	52	16	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	1949	78	89	564	17	51	0	54	17	0	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2027	0	89	581	0	0	105	0	0	23	0
Intersection Summary												

Timings

3: Sierra Bella Drive/Tanglewood Drive & Green River Road

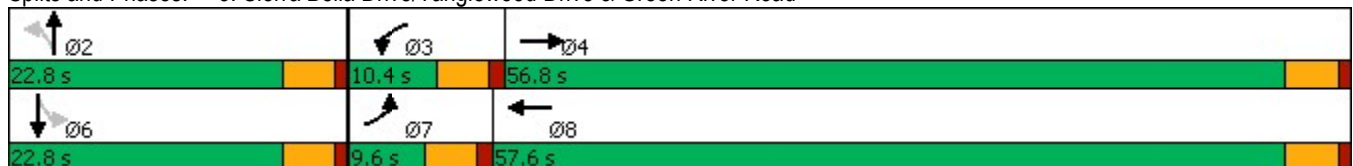


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗		↕		↕
Traffic Volume (vph)	11	1871	85	541	49	0	16	0
Future Volume (vph)	11	1871	85	541	49	0	16	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	56.8	10.4	57.6	22.8	22.8	22.8	22.8
Total Split (%)	10.7%	63.1%	11.6%	64.0%	25.3%	25.3%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.1	52.3	5.9	60.8		18.3		18.3
Actuated g/C Ratio	0.06	0.58	0.07	0.68		0.20		0.20
v/c Ratio	0.11	0.99	0.77	0.24		0.29		0.06
Control Delay	42.9	37.3	81.4	6.4		14.4		0.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.9	37.3	81.4	6.4		14.4		0.4
LOS	D	D	F	A		B		A
Approach Delay		37.4		16.3		14.4		0.4
Approach LOS		D		B		B		A

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 31.3	Intersection LOS: C
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Sierra Bella Drive/Tanglewood Drive & Green River Road

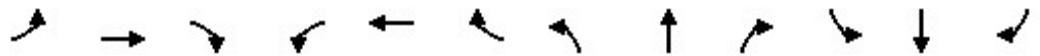


HCM 6th Signalized Intersection Summary

Skyline Village Commercial Center TIA


























3: Sierra Bella Drive/Tanglewood Drive & Green River Road

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1871	75	85	541	16	49	0	52	16	0	6
Future Volume (veh/h)	11	1871	75	85	541	16	49	0	52	16	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1949	78	89	564	17	51	0	54	17	0	6
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	2026	81	114	2226	67	191	20	160	284	10	79
Arrive On Green	0.01	0.58	0.58	0.06	0.63	0.63	0.20	0.00	0.20	0.20	0.00	0.20
Sat Flow, veh/h	1781	3484	138	1781	3522	106	642	96	782	1049	51	388
Grp Volume(v), veh/h	11	988	1039	89	284	297	105	0	0	23	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1845	1781	1777	1851	1520	0	0	1489	0	0
Q Serve(g_s), s	0.5	46.9	48.4	4.4	6.3	6.3	3.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	46.9	48.4	4.4	6.3	6.3	5.1	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.06	0.49		0.51	0.74		0.26
Lane Grp Cap(c), veh/h	24	1034	1073	114	1123	1170	370	0	0	374	0	0
V/C Ratio(X)	0.46	0.96	0.97	0.78	0.25	0.25	0.28	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	101	1036	1076	117	1123	1170	370	0	0	374	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(l)	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	43.9	17.7	18.0	41.4	7.2	7.2	30.4	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	13.3	18.2	20.1	27.8	0.1	0.1	1.9	0.0	0.0	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	0.3	22.0	24.0	2.8	2.2	2.3	2.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	35.8	38.1	69.2	7.3	7.3	32.3	0.0	0.0	29.1	0.0	0.0
LnGrp LOS	E	D	D	E	A	A	C	A	A	C	A	A
Approach Vol, veh/h		2038			670			105				23
Approach Delay, s/veh		37.1			15.6			32.3				29.1
Approach LOS		D			B			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	10.2	56.7		22.8	5.7	61.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.3	5.9	52.3		18.3	5.1	53.1				
Max Q Clear Time (g_c+I1), s		7.1	6.4	50.4		2.9	2.5	8.3				
Green Ext Time (p_c), s		0.3	0.0	1.8		0.0	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay				31.8								
HCM 6th LOS				C								













Lanes and Geometrics
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		0	90		150	0		0	135		0
Storage Lanes	2		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt						0.850					0.850	0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3433	3539	0	1770	3539	1583	0	1863	0	1770	1504	1504
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						136						528
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1015			1166			201				285
Travel Time (s)		23.1			26.5			4.6				6.5

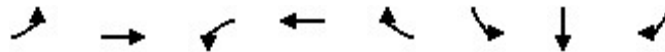
Intersection Summary

Area Type: Other

Volume
4: Paseo Grande & Green River Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	158	1743	2	1	468	46	0	0	0	89	0	160
Future Volume (vph)	158	1743	2	1	468	46	0	0	0	89	0	160
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	163	1797	2	1	482	47	0	0	0	92	0	165
Shared Lane Traffic (%)												50%
Lane Group Flow (vph)	163	1799	0	1	482	47	0	0	0	92	83	82
Intersection Summary												

Timings
4: Paseo Grande & Green River Road

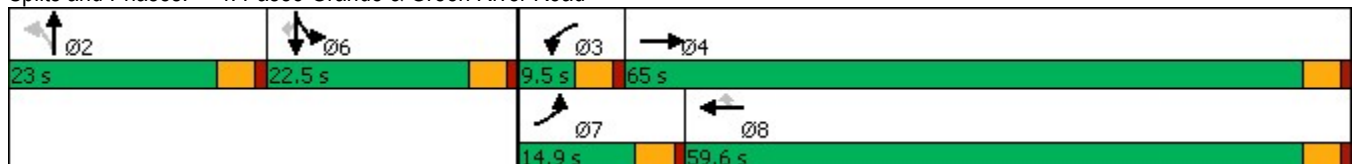


Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations	↖ ↗	↕	↖	↕	↖	↖	↕	↖	
Traffic Volume (vph)	158	1743	1	468	46	89	0	160	
Future Volume (vph)	158	1743	1	468	46	89	0	160	
Turn Type	Prot	NA	Prot	NA	Perm	Split	NA	Perm	
Protected Phases	7	4	3	8		6	6		2
Permitted Phases					8				6
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	14.9	65.0	9.5	59.6	59.6	22.5	22.5	22.5	23.0
Total Split (%)	12.4%	54.2%	7.9%	49.7%	49.7%	18.8%	18.8%	18.8%	19%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	9.7	60.6	5.0	48.2	48.2	18.0	18.0	18.0	
Actuated g/C Ratio	0.09	0.54	0.04	0.43	0.43	0.16	0.16	0.16	
v/c Ratio	0.55	0.94	0.01	0.32	0.06	0.33	0.12	0.12	
Control Delay	57.2	36.2	54.0	22.0	0.2	46.2	0.4	0.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.2	36.2	54.0	22.0	0.2	46.2	0.4	0.4	
LOS	E	D	D	C	A	D	A	A	
Approach Delay		37.9		20.1			16.8		
Approach LOS		D		C			B		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 112.4
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 32.5
 Intersection LOS: C
 Intersection Capacity Utilization 68.6%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 4: Paseo Grande & Green River Road



HCM 6th Signalized Intersection Summary
4: Paseo Grande & Green River Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1743	2	1	468	46	0	0	0	89	0	160
Future Volume (veh/h)	158	1743	2	1	468	46	0	0	0	89	0	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	1797	2	1	482	47	0	0	0	92	0	165
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1901	2	2	1630	727	0	303	0	280	0	499
Arrive On Green	0.06	0.52	0.52	0.00	0.46	0.46	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	3456	3642	4	1781	3554	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	163	876	923	1	482	47	0	0	0	92	0	165
Grp Sat Flow(s),veh/h/ln	1728	1777	1870	1781	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	5.3	53.2	53.2	0.1	9.7	1.9	0.0	0.0	0.0	5.2	0.0	5.3
Cycle Q Clear(g_c), s	5.3	53.2	53.2	0.1	9.7	1.9	0.0	0.0	0.0	5.2	0.0	5.3
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	927	976	2	1630	727	0	303	0	280	0	499
V/C Ratio(X)	0.73	0.95	0.95	0.41	0.30	0.06	0.00	0.00	0.00	0.33	0.00	0.33
Avail Cap(c_a), veh/h	314	940	989	78	1713	764	0	303	0	280	0	499
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	25.8	25.8	57.0	19.4	17.3	0.0	0.0	0.0	42.8	0.0	42.8
Incr Delay (d2), s/veh	5.1	17.5	16.9	84.4	0.1	0.0	0.0	0.0	0.0	3.1	0.0	1.8
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	2.5	25.8	27.0	0.1	4.0	0.7	0.0	0.0	0.0	2.6	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	43.3	42.7	141.5	19.5	17.3	0.0	0.0	0.0	45.9	0.0	44.6
LnGrp LOS	E	D	D	F	B	B	A	A	A	D	A	D
Approach Vol, veh/h		1962			530			0				257
Approach Delay, s/veh		44.2			19.5			0.0				45.1
Approach LOS		D			B							D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	4.7	64.2		22.5	11.9	56.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	60.5		18.0	10.4	55.1				
Max Q Clear Time (g_c+I1), s		0.0	2.1	55.2		7.3	7.3	11.7				
Green Ext Time (p_c), s		0.0	0.0	4.4		0.6	0.1	3.8				

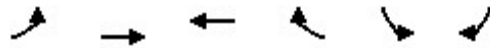
Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lanes and Geometrics
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.995			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3522	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3522	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			7			19
Link Speed (mph)		30	30		30	
Link Distance (ft)		1019	1428		375	
Travel Time (s)		23.2	32.5		8.5	

Intersection Summary

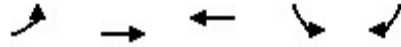
Area Type: Other

Volume
5: Foothill Parkway & Border Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	36	1680	510	19	16	19
Future Volume (vph)	36	1680	510	19	16	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	37	1714	520	19	16	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	1714	539	0	16	19
Intersection Summary						

Timings
5: Foothill Parkway & Border Avenue

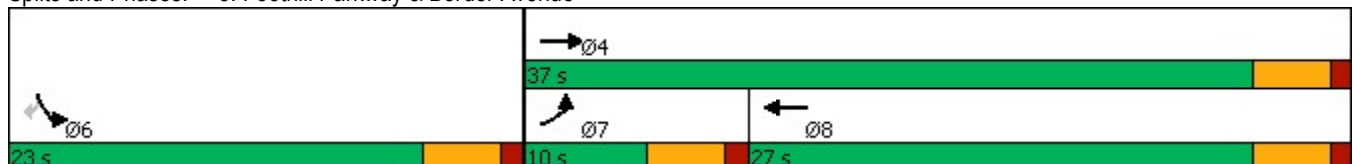


Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗↗	↗↖	↖	↗
Traffic Volume (vph)	36	1680	510	16	19
Future Volume (vph)	36	1680	510	16	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	37.0	27.0	23.0	23.0
Total Split (%)	16.7%	61.7%	45.0%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Max	Max
Act Effect Green (s)	5.5	32.5	28.5	18.5	18.5
Actuated g/C Ratio	0.09	0.54	0.48	0.31	0.31
v/c Ratio	0.23	0.89	0.32	0.03	0.04
Control Delay	29.0	20.4	11.5	14.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	20.4	11.5	14.8	7.6
LOS	C	C	B	B	A
Approach Delay		20.6	11.5	10.9	
Approach LOS		C	B	B	

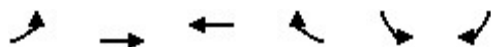
Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 18.3
 Intersection LOS: B
 Intersection Capacity Utilization 58.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 5: Foothill Parkway & Border Avenue


























HCM 6th Signalized Intersection Summary
5: Foothill Parkway & Border Avenue



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	36	1680	510	19	16	19	
Future Volume (veh/h)	36	1680	510	19	16	19	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	37	1714	520	19	16	19	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	69	1903	1472	54	557	495	
Arrive On Green	0.04	0.54	0.42	0.42	0.31	0.31	
Sat Flow, veh/h	1781	3647	3590	128	1781	1585	
Grp Volume(v), veh/h	37	1714	264	275	16	19	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1847	1781	1585	
Q Serve(g_s), s	1.2	25.6	6.0	6.0	0.4	0.5	
Cycle Q Clear(g_c), s	1.2	25.6	6.0	6.0	0.4	0.5	
Prop In Lane	1.00			0.07	1.00	1.00	
Lane Grp Cap(c), veh/h	69	1903	748	778	557	495	
V/C Ratio(X)	0.54	0.90	0.35	0.35	0.03	0.04	
Avail Cap(c_a), veh/h	165	1950	748	778	557	495	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.0	12.3	11.7	11.7	14.1	14.2	
Incr Delay (d2), s/veh	6.4	6.1	0.3	0.3	0.1	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	9.5	2.1	2.2	0.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	34.4	18.4	11.9	11.9	14.2	14.3	
LnGrp LOS	C	B	B	B	B	B	
Approach Vol, veh/h		1751	539		35		
Approach Delay, s/veh		18.8	11.9		14.3		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.2	23.0	6.8	29.4
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				32.5	18.5	5.5	22.5
Max Q Clear Time (g_c+I1), s				27.6	2.5	3.2	8.0
Green Ext Time (p_c), s				4.1	0.0	0.0	2.8
Intersection Summary							
HCM 6th Ctrl Delay			17.1				
HCM 6th LOS			B				

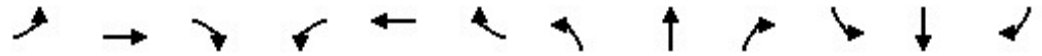
Lanes and Geometrics
6: Chase Drive & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	110		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.998			0.919			0.850	
Flt Protected	0.950			0.950				0.980		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	0	1678	0	1770	1583	0
Flt Permitted	0.950			0.950				0.132		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3532	0	0	226	0	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		1			136				465
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1097			4668			157				434
Travel Time (s)		24.9			106.1			3.6				9.9

Intersection Summary

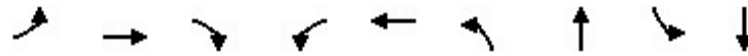
Area Type: Other

Volume
6: Chase Drive & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	93	1538	61	93	460	7	49	0	73	6	0	46
Future Volume (vph)	93	1538	61	93	460	7	49	0	73	6	0	46
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	99	1636	65	99	489	7	52	0	78	6	0	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	1636	65	99	496	0	0	130	0	6	49	0
Intersection Summary												

Timings
6: Chase Drive & Foothill Parkway

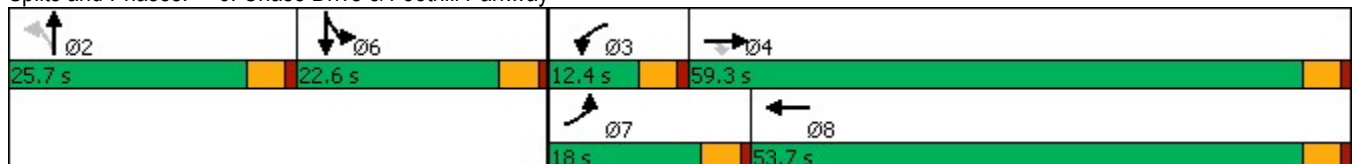


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗		↕	↖	↗
Traffic Volume (vph)	93	1538	61	93	460	49	0	6	0
Future Volume (vph)	93	1538	61	93	460	49	0	6	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Split	NA
Protected Phases	7	4		3	8		2	6	6
Permitted Phases			4			2			
Detector Phase	7	4	4	3	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	18.0	59.3	59.3	12.4	53.7	25.7	25.7	22.6	22.6
Total Split (%)	15.0%	49.4%	49.4%	10.3%	44.8%	21.4%	21.4%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	10.9	54.8	54.8	7.9	51.8		21.2	6.0	6.0
Actuated g/C Ratio	0.10	0.51	0.51	0.07	0.48		0.20	0.06	0.06
v/c Ratio	0.56	0.91	0.08	0.77	0.29		0.85	0.06	0.09
Control Delay	57.7	33.3	1.4	84.8	18.0		50.3	49.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	57.7	33.3	1.4	84.8	18.0		50.3	49.7	0.3
LOS	E	C	A	F	B		D	D	A
Approach Delay		33.5			29.1		50.3		5.7
Approach LOS		C			C		D		A

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 107.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Chase Drive & Foothill Parkway



























HCM 6th Signalized Intersection Summary
6: Chase Drive & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1538	61	93	460	7	49	0	73	6	0	46
Future Volume (veh/h)	93	1538	61	93	460	7	49	0	73	6	0	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1636	65	99	489	7	52	0	78	6	0	49
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1975	881	126	1990	28	70	0	105	104	0	92
Arrive On Green	0.07	0.56	0.56	0.07	0.55	0.55	0.11	0.00	0.11	0.06	0.00	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3587	51	663	0	995	1781	0	1585
Grp Volume(v), veh/h	99	1636	65	99	242	254	130	0	0	6	0	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1861	1658	0	0	1781	0	1585
Q Serve(g_s), s	4.7	32.5	1.6	4.7	6.0	6.0	6.5	0.0	0.0	0.3	0.0	2.6
Cycle Q Clear(g_c), s	4.7	32.5	1.6	4.7	6.0	6.0	6.5	0.0	0.0	0.3	0.0	2.6
Prop In Lane	1.00		1.00	1.00		0.03	0.40		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	128	1975	881	126	986	1033	175	0	0	104	0	92
V/C Ratio(X)	0.78	0.83	0.07	0.78	0.25	0.25	0.74	0.00	0.00	0.06	0.00	0.53
Avail Cap(c_a), veh/h	280	2271	1013	164	1019	1068	410	0	0	376	0	335
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	15.7	8.8	39.2	9.8	9.8	37.2	0.0	0.0	38.2	0.0	39.2
Incr Delay (d2), s/veh	9.6	2.4	0.0	16.7	0.1	0.1	6.2	0.0	0.0	0.2	0.0	4.6
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	2.4	12.4	0.5	2.6	2.2	2.3	2.9	0.0	0.0	0.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	18.1	8.9	55.9	10.0	10.0	43.4	0.0	0.0	38.4	0.0	43.9
LnGrp LOS	D	B	A	E	A	A	D	A	A	D	A	D
Approach Vol, veh/h		1800			595			130				55
Approach Delay, s/veh		19.4			17.6			43.4				43.3
Approach LOS		B			B			D				D
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.5	10.6	52.2		9.5	10.6	52.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.2	7.9	54.8		18.1	13.5	49.2				
Max Q Clear Time (g_c+I1), s		8.5	6.7	34.5		4.6	6.7	8.0				
Green Ext Time (p_c), s		0.5	0.0	13.1		0.1	0.1	3.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

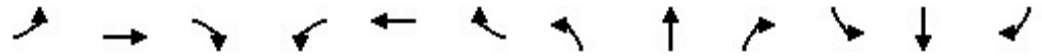
Lanes and Geometrics
7: Lincoln Avenue & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	210		0	90		0	90		0	170		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.955			0.987			0.974			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3380	0	1770	3493	0	1770	3447	0	1770	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3380	0	1770	3493	0	1770	3447	0	1770	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			12			21			78	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4668			1471			1056			776	
Travel Time (s)		106.1			33.4			24.0			17.6	

Intersection Summary

Area Type: Other

Volume
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	139	1064	462	14	397	38	125	95	20	101	277	131
Future Volume (vph)	139	1064	462	14	397	38	125	95	20	101	277	131
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	143	1097	476	14	409	39	129	98	21	104	286	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	1573	0	14	448	0	129	119	0	104	421	0
Intersection Summary												

Timings
7: Lincoln Avenue & Foothill Parkway



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	139	1064	14	397	125	95	101	277
Future Volume (vph)	139	1064	14	397	125	95	101	277
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	19.4	45.0	9.6	35.2	12.4	24.2	11.2	23.0
Total Split (%)	21.6%	50.0%	10.7%	39.1%	13.8%	26.9%	12.4%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	11.4	40.6	5.1	26.4	7.9	19.7	6.7	18.5
Actuated g/C Ratio	0.14	0.49	0.06	0.32	0.10	0.24	0.08	0.22
v/c Ratio	0.58	0.92	0.13	0.40	0.76	0.14	0.72	0.51
Control Delay	43.2	28.8	40.8	22.8	66.3	21.5	66.9	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	28.8	40.8	22.8	66.3	21.5	66.9	25.6
LOS	D	C	D	C	E	C	E	C
Approach Delay		30.0		23.3		44.8		33.8
Approach LOS		C		C		D		C

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 82.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Lincoln Avenue & Foothill Parkway



































HCM 6th Signalized Intersection Summary
7: Lincoln Avenue & Foothill Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	1064	462	14	397	38	125	95	20	101	277	131
Future Volume (veh/h)	139	1064	462	14	397	38	125	95	20	101	277	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	1097	476	14	409	39	129	98	21	104	286	135
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	1144	483	29	1267	120	160	675	141	132	507	233
Arrive On Green	0.10	0.47	0.47	0.02	0.39	0.39	0.09	0.23	0.23	0.07	0.21	0.21
Sat Flow, veh/h	1781	2435	1027	1781	3280	311	1781	2927	610	1781	2364	1088
Grp Volume(v), veh/h	143	792	781	14	221	227	129	58	61	104	213	208
Grp Sat Flow(s),veh/h/ln	1781	1777	1685	1781	1777	1814	1781	1777	1761	1781	1777	1675
Q Serve(g_s), s	6.8	36.7	39.4	0.7	7.5	7.6	6.1	2.3	2.4	4.9	9.2	9.6
Cycle Q Clear(g_c), s	6.8	36.7	39.4	0.7	7.5	7.6	6.1	2.3	2.4	4.9	9.2	9.6
Prop In Lane	1.00		0.61	1.00		0.17	1.00		0.35	1.00		0.65
Lane Grp Cap(c), veh/h	179	835	792	29	686	701	160	410	406	132	381	359
V/C Ratio(X)	0.80	0.95	0.99	0.48	0.32	0.32	0.81	0.14	0.15	0.79	0.56	0.58
Avail Cap(c_a), veh/h	308	835	792	105	686	701	163	410	406	138	381	359
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	37.9	21.8	22.6	42.0	18.5	18.6	38.5	26.4	26.4	39.2	30.2	30.3
Incr Delay (d2), s/veh	8.0	19.7	28.3	11.4	0.3	0.3	24.3	0.7	0.8	24.8	5.8	6.6
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	3.3	18.6	20.5	0.4	3.0	3.1	3.7	1.0	1.1	3.0	4.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	41.6	50.9	53.4	18.8	18.8	62.8	27.1	27.2	64.0	36.0	37.0
LnGrp LOS	D	D	D	D	B	B	E	C	C	E	D	D
Approach Vol, veh/h		1716			462			248			525	
Approach Delay, s/veh		46.2			19.9			45.7			41.9	
Approach LOS		D			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	24.4	5.9	45.0	12.3	23.0	13.1	37.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.7	19.7	5.1	40.5	7.9	18.5	14.9	30.7				
Max Q Clear Time (g_c+I1), s	6.9	4.4	2.7	41.4	8.1	11.6	8.8	9.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	1.4	0.2	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			41.3									
HCM 6th LOS			D									

Lanes and Geometrics
8: Main Street & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	  	 	 	 	 	 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	190		100	150		150	160		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			149			205			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2326			1820			732			492	
Travel Time (s)		52.9			41.4			16.6			11.2	

Intersection Summary

Area Type: Other

Volume
8: Main Street & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	60	238	58	311	449	143	107	266	93	209	1161	104
Future Volume (vph)	60	238	58	311	449	143	107	266	93	209	1161	104
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	63	248	60	324	468	149	111	277	97	218	1209	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	248	60	324	468	149	111	277	97	218	1209	108
Intersection Summary												

Timings
8: Main Street & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	238	58	311	449	143	107	266	93	209	1161	104
Future Volume (vph)	60	238	58	311	449	143	107	266	93	209	1161	104
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	9.6	22.5	22.5	13.1	26.0	14.3	9.5	30.1	30.1	14.3	34.9	9.6
Total Split (%)	12.0%	28.1%	28.1%	16.4%	32.5%	17.9%	11.9%	37.6%	37.6%	17.9%	43.6%	12.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	5.1	11.8	11.8	8.6	17.5	31.0	5.0	25.9	25.9	9.0	32.0	41.7
Actuated g/C Ratio	0.07	0.16	0.16	0.12	0.24	0.42	0.07	0.35	0.35	0.12	0.44	0.57
v/c Ratio	0.26	0.44	0.14	0.80	0.56	0.20	0.47	0.22	0.14	0.52	0.78	0.11
Control Delay	37.0	30.0	0.7	49.8	28.2	3.3	41.4	18.2	0.4	35.6	24.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	30.0	0.7	49.8	28.2	3.3	41.4	18.2	0.4	35.6	24.2	2.7
LOS	D	C	A	D	C	A	D	B	A	D	C	A
Approach Delay		26.5			31.7			20.0			24.3	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 73.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 67.8%































ICU Level of Service C

Analysis Period (min) 15





























Splits and Phases: 8: Main Street & Foothill Parkway



HCM 6th Signalized Intersection Summary
8: Main Street & Foothill Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 		
Traffic Volume (veh/h)	60	238	58	311	449	143	107	266	93	209	1161	104
Future Volume (veh/h)	60	238	58	311	449	143	107	266	93	209	1161	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	248	60	324	468	149	111	277	97	218	1209	108
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	430	192	415	678	448	219	1452	647	317	1553	772
Arrive On Green	0.05	0.12	0.12	0.12	0.19	0.19	0.06	0.41	0.41	0.09	0.44	0.44
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	62	248	60	324	468	149	111	277	97	218	1209	108
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.2	4.6	2.4	6.3	8.5	5.2	2.2	3.5	2.7	4.3	20.2	2.6
Cycle Q Clear(g_c), s	1.2	4.6	2.4	6.3	8.5	5.2	2.2	3.5	2.7	4.3	20.2	2.6
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	173	430	192	415	678	448	219	1452	647	317	1553	772
V/C Ratio(X)	0.36	0.58	0.31	0.78	0.69	0.33	0.51	0.19	0.15	0.69	0.78	0.14
Avail Cap(c_a), veh/h	253	919	410	427	1098	635	248	1452	647	487	1553	772
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	32.0	28.9	27.9	29.7	26.2	19.8	31.5	13.2	13.0	30.6	16.7	9.8
Incr Delay (d2), s/veh	1.2	1.2	0.9	8.8	1.3	0.4	1.8	0.3	0.5	2.6	3.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	0.9	3.0	3.6	1.9	0.9	1.3	1.0	1.8	8.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	30.1	28.9	38.5	27.5	20.2	33.3	13.5	13.5	33.3	20.6	10.2
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	C	B
Approach Vol, veh/h		370			941			485			1535	
Approach Delay, s/veh		30.4			30.1			18.0			21.7	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	32.9	12.9	12.9	8.9	34.9	8.0	17.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	25.6	8.6	18.0	5.0	30.4	5.1	21.5				
Max Q Clear Time (g_c+I1), s	6.3	5.5	8.3	6.6	4.2	22.2	3.2	10.5				
Green Ext Time (p_c), s	0.2	2.0	0.0	1.3	0.0	5.2	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			24.5									
HCM 6th LOS			C									

Lanes and Geometrics
9: Fullerton Avenue & Foothill Parkway

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		150	200		170	200		0	140		0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.961				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3401	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			205			47			205
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1135			930			446				415
Travel Time (s)		25.8			21.1			10.1				9.4

Intersection Summary

Area Type: Other

Volume
9: Fullerton Avenue & Foothill Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	101	1254	129	45	456	34	39	129	46	119	236	58
Future Volume (vph)	101	1254	129	45	456	34	39	129	46	119	236	58
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	104	1293	133	46	470	35	40	133	47	123	243	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	1293	133	46	470	35	40	180	0	123	243	60
Intersection Summary												

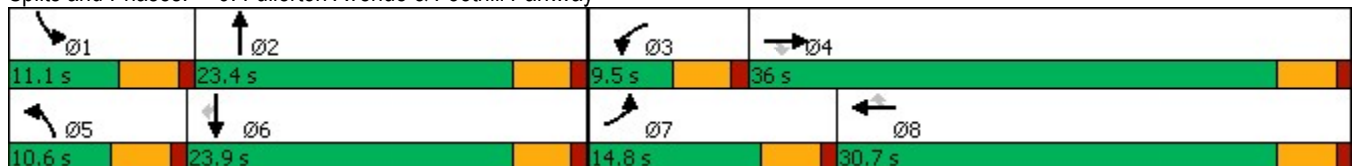
Timings
9: Fullerton Avenue & Foothill Parkway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	101	1254	129	45	456	34	39	129	119	236	58
Future Volume (vph)	101	1254	129	45	456	34	39	129	119	236	58
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	14.8	36.0	36.0	9.5	30.7	30.7	10.6	23.4	11.1	23.9	23.9
Total Split (%)	18.5%	45.0%	45.0%	11.9%	38.4%	38.4%	13.3%	29.3%	13.9%	29.9%	29.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)	8.9	31.1	31.1	5.0	25.5	25.5	6.0	19.0	6.6	24.1	24.1
Actuated g/C Ratio	0.12	0.41	0.41	0.07	0.34	0.34	0.08	0.25	0.09	0.32	0.32
v/c Ratio	0.50	0.89	0.18	0.39	0.39	0.05	0.29	0.20	0.79	0.41	0.09
Control Delay	41.1	31.1	3.4	45.9	21.3	0.1	40.2	18.2	71.8	26.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	31.1	3.4	45.9	21.3	0.1	40.2	18.2	71.8	26.1	0.3
LOS	D	C	A	D	C	A	D	B	E	C	A
Approach Delay		29.3			22.0			22.2		35.7	
Approach LOS		C			C			C		D	

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 75.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 28.3
 Intersection LOS: C
 Intersection Capacity Utilization 70.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 9: Fullerton Avenue & Foothill Parkway



HCM 6th Signalized Intersection Summary
9: Fullerton Avenue & Foothill Parkway

Skyline Village Commercial Center TIA
04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	1254	129	45	456	34	39	129	46	119	236	58
Future Volume (veh/h)	101	1254	129	45	456	34	39	129	46	119	236	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1293	133	46	470	35	40	133	47	123	243	60
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1415	631	72	1292	576	66	635	216	152	546	463
Arrive On Green	0.08	0.40	0.40	0.04	0.36	0.36	0.04	0.24	0.24	0.09	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2603	885	1781	1870	1585
Grp Volume(v), veh/h	104	1293	133	46	470	35	40	89	91	123	243	60
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1711	1781	1870	1585
Q Serve(g_s), s	4.4	26.7	4.3	2.0	7.5	1.1	1.7	3.1	3.3	5.3	8.2	2.2
Cycle Q Clear(g_c), s	4.4	26.7	4.3	2.0	7.5	1.1	1.7	3.1	3.3	5.3	8.2	2.2
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	134	1415	631	72	1292	576	66	433	417	152	546	463
V/C Ratio(X)	0.78	0.91	0.21	0.64	0.36	0.06	0.60	0.21	0.22	0.81	0.45	0.13
Avail Cap(c_a), veh/h	237	1445	644	115	1292	576	140	433	417	152	546	463
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(l)	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	35.2	22.1	15.3	36.6	18.1	16.1	36.7	23.3	23.4	34.8	22.3	20.2
Incr Delay (d2), s/veh	9.3	9.1	0.2	8.9	0.2	0.0	8.5	1.1	1.2	27.1	2.6	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	2.2	12.0	1.5	1.0	3.0	0.4	0.9	1.4	1.4	3.4	3.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	31.2	15.5	45.6	18.3	16.1	45.2	24.4	24.6	61.9	24.9	20.8
LnGrp LOS	D	C	B	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1530			551			220			426	
Approach Delay, s/veh		30.7			20.4			28.3			35.0	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	23.4	7.6	35.3	7.4	27.1	10.3	32.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	18.9	5.0	31.5	6.1	19.4	10.3	26.2				
Max Q Clear Time (g_c+I1), s	7.3	5.3	4.0	28.7	3.7	10.2	6.4	9.5				
Green Ext Time (p_c), s	0.0	0.8	0.0	2.2	0.0	1.0	0.1	3.0				
Intersection Summary												
HCM 6th Ctrl Delay				29.1								
HCM 6th LOS				C								

Appendix F

Approved Scope of Work

Exhibit F**Traffic Impact Study Scope – City of Corona**

Project Name:	Skyline Village Project
Project Address:	Southwest of Foothill Parkway at Chase Drive
Project Description:	17.02 acres of mixed use retail/commercial center with residential condos.
Case Number:	

	Consultant	Developer
Name:	RK Engineering Group, Inc.	GF Investments, INC.
Address:	4000 Westerly Pl., Newport Beach, CA	110 N Lincoln Ave Ste. 202, Corona, CA
Telephone:	949-474-0809	951-603-5042
E-mail:		

A. Trip Generation

Proposed Land Use	Comm/Mixed Use/Resid	Previous Land Use	VACANT
Existing Zoning		Proposed Zoning	

	In	Out	Total
AM Peak Hour	147	131	278
PM Peak Hour	150	124	274

B. Trip Distribution

Attach graphical representation

C. Background Traffic

Project Opening year:	2021	Growth Rate:	2% per year
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D. Study Intersections

Serfas Club Dr/Green River Rd	Chase Drive/Foothill Pkwy
Montana Ranch Rd / Green River	Lincoln Ave/Foothill Pkwy
Tanglewood Dr / Green River Rd	Main St/Foothill Pkwy
Paseo Grande/Green River Rd	Fullerton Ave/Foothill Pkwy
Border Ave / Green River Rd	

E. Specific Issues to be addressed in the Study

Approved By:

City of Corona Traffic Engineering:	
Date:	

APPROVED

By Rosalva Ureno at 4:01 pm, Dec 06, 2019

SKYLINE VILLAGE PROJECT TRAFFIC IMPACT STUDY
Traffic Impact Study Scope of Work
December 2, 2019

The following provides information on the proposed project, summarizes the analysis scope, parameters, and assumptions for review and approval, and also includes request for information on items related to the study.

A. Project Description: The project would consist of constructing and operating a mixed use retail/commercial center and residential condos on approximately 17.02 acres of vacant land. The following land uses are proposed for development:

- 88 dwelling units of residential condominiums;
- 10,000 square feet of fast food without drive through restaurants;
- 10,000 square feet of high turn-over sit-down restaurants; and
- 10,700 square feet of general retail use.

The project site is located southwest of Foothill Parkway at Chase Drive, both in the City of Corona.

The project will be evaluated in a single phase and is planned to open in 2021.

Access for the proposed project is planned to be provided via one (1) signalized driveway along Foothill Parkway, at the existing intersection with Chase Drive.

Exhibit A shows the location of the proposed project. Exhibit B shows the proposed site plan.

B. Project Trip Generation: Trip generation for the proposed project is determined based on ITE 10th Edition trip generation rates for the proposed land uses as shown in Table 1.

Utilizing the ITE trip generation rates shown in Table 1, Table 2 summarizes the daily and peak hour trip generation for the proposed project.

As shown in Table 2, after accounting for the pass-by adjustments, the proposed project is forecast to generate approximately 3,608 daily trips which include approximately 278 AM peak hour trip and approximately 274 PM peak hour trips.

C. Project Trip Distribution: Exhibit C shows the trip distribution for the proposed project.

D. Study Intersections: The analysis will evaluate the following study intersections:

1. Serfas Club Drive / Green River Road;
2. Montana Ranch Road / Green River Road;
3. Tanglewood Drive / Green River Road;
4. Paseo Grande / Green River Road – Foothill Parkway;
5. Border Avenue / Green River Road;
6. Chase Drive – Project Driveway / Foothill Parkway;
7. Lincoln Avenue / Foothill Parkway;
8. Main Street / Foothill Parkway; and
9. Fullerton Avenue / Foothill Parkway.

E. Analysis Scenarios: The analysis will evaluate traffic conditions for the following scenarios during the weekday AM and weekday PM peak hour conditions:

- Existing Conditions;
- Project Opening Year (2021) with Background Traffic;
- Project Opening Year (2021) with Background Traffic and Proposed Project; and

- Project Opening Year (2021) with Background Traffic and Proposed Project Plus Mitigation;

F. Traffic Analysis Parameters: The analysis will utilize the following parameters in accordance with the *City of Corona*:

- For this study, the HCM level of service grades will be determined utilizing the HCM 6th Edition Methodology and the Synchro analysis software.

G. Existing Traffic Counts: The analysis will utilize new traffic counts. The counts will **not** be collected by vehicle classification.

AM peak period counts will be collected during one typical weekday from 5:30 AM to 9:00 AM. PM peak period counts will be collected during one typical weekday from 3:30 PM to 6:30 PM.

H. Forecast Opening Year (2021) Conditions Traffic Volumes: Project Opening Year (2021) background traffic volumes will be derived by applying an annual growth rate of two (2) percent per year to existing traffic volumes and addition of traffic associated with specific cumulative projects in the area provided by City of Corona Staff.

I. Performance Criteria:

City of Corona Study Intersections: The acceptable Level of Service (LOS) for intersections within the City of Corona is LOS C or better for local intersections in residential/industrial areas, and LOS D or better for collector and arterial intersections.

J. Significant Impact Criteria: Per the City of Corona Traffic Impact Study Guidelines, any intersection operating at a deficient LOS will be considered impacted and would require mitigations to achieve acceptable operations.

K. Request for Information: Please provide information on the following for use in the traffic study:

- RK will contact the City's planning department for information on cumulative projects that need to be included in the traffic analysis (location, land use type(s), and land use quantities); and

- Information on future roadway and circulation system modifications/improvements that are planned within the study area and would potentially affect the analysis.

If you have any questions, or would like further review, please call us at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.



Alex Tabrizi, PE, TE
Associate Principal

Attachments

Approved by:

City of Corona

Date

Attachments

Table 1
ITE Trip Generation Rates¹

Land Use	Units ²	ITE Code	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low-Rise)	DU	220	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Shopping Center Rate	TSF	820	0.58	0.36	0.94	1.83	1.98	3.81	37.75
High Turnover/Sit Down Rest	TSF	932	5.47	4.47	9.94	6.06	3.71	9.77	112.18
Fast Food w/o Drive Thru	TSF	933	15.06	10.04	25.10	14.17	14.17	28.34	346.23

¹ Source: 2017 ITE Trip Generation Manual (10th Edition)

² TSF = Thousand square feet; DU = Dwelling unit

Table 2
Proposed Project Trip Generation¹

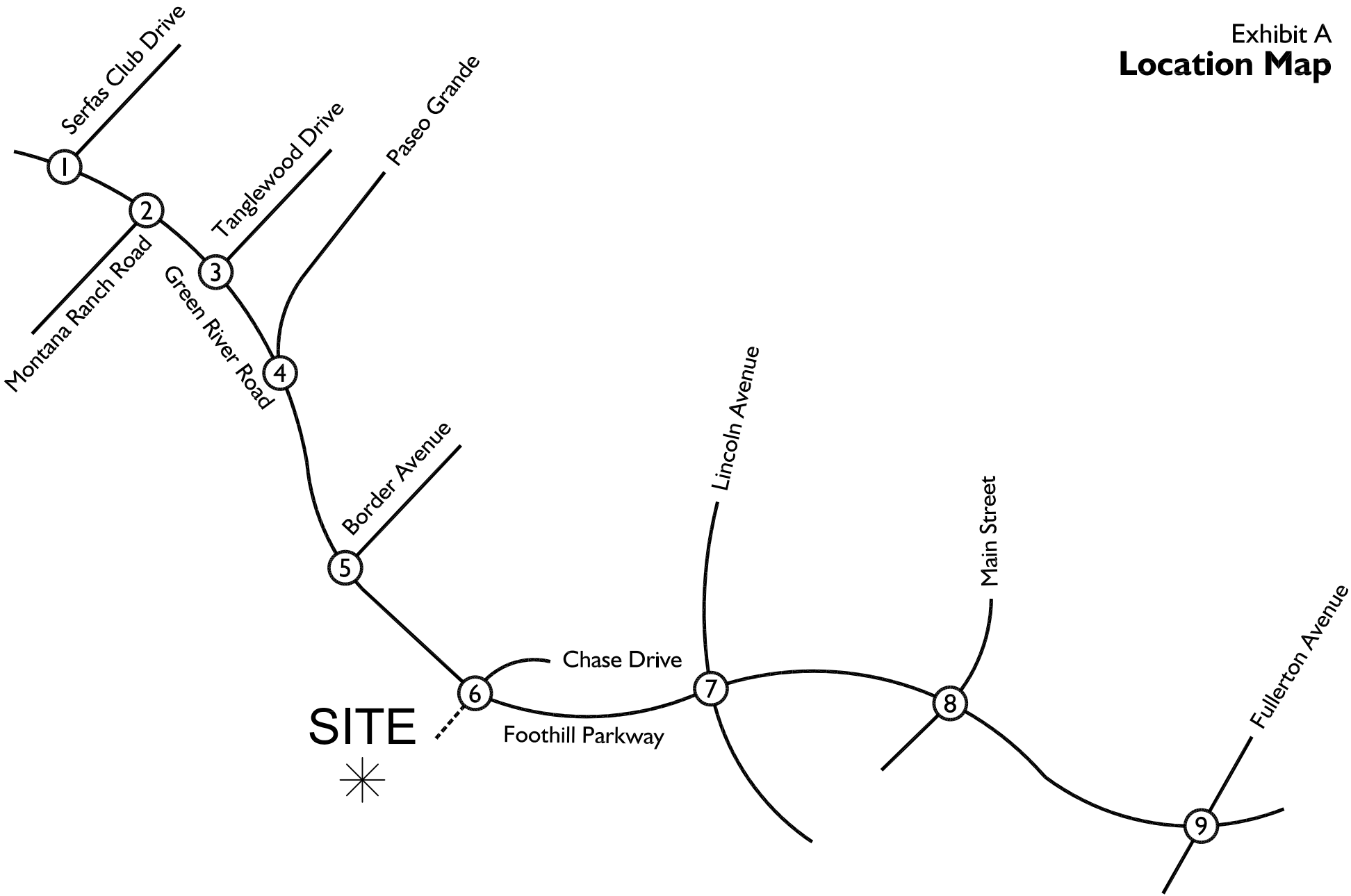
Land Use (ITE Code)	Quantity	Units ²	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing - Low-Rise (220)	88.000	DU	9	31	40	31	18	49	644
Retail (820)	10.700	TSF	6	4	10	20	21	41	404
ITE Pass-by adjustment (0% AM Peak Hour & 34% PM Peak Hour)			0	0	0	-7	-7	-14	-69
<i>Subtotal Retail</i>			<i>6</i>	<i>4</i>	<i>10</i>	<i>13</i>	<i>14</i>	<i>27</i>	<i>335</i>
High Turnover Sit-Down Restaurant (932)	10.000	TSF	55	45	100	61	37	98	1,122
ITE Pass-by adjustment (0% AM Peak Hour & 43% PM Peak Hour)			0	0	0	-26	-16	-42	-241
<i>Subtotal High Turnover Sit-Down Restaurant</i>			<i>55</i>	<i>45</i>	<i>100</i>	<i>35</i>	<i>21</i>	<i>56</i>	<i>881</i>
Fast Food Without Drive Through Restaurant (933)	10.000	TSF	151	100	251	142	142	284	3,462
Pass-by adjustment (49% AM Peak Hour & 50% PM Peak Hour) ³			-74	-49	-123	-71	-71	-142	-1,714
<i>Subtotal Fast Food Without Drive Through Restaurant</i>			<i>77</i>	<i>51</i>	<i>128</i>	<i>71</i>	<i>71</i>	<i>142</i>	<i>1,748</i>
Total (Without Pass-by Adjustment)			221	180	401	254	218	472	5,632
Total (With Pass-by Adjustment)			147	131	278	150	124	274	3,608

¹ Source: 2017 ITE Trip Generation Manual (10th Edition)

² TSF = Thousand Square Feet; DU = dwelling units

³ Utilizes ITE-recommended pass-by adjustment for fast food with drive through restaurant use.

Exhibit A
Location Map



Legend:

- ① = Study Area Intersection
- * = Project Site
- = Project Access Driveway



Exhibit B Site Plan

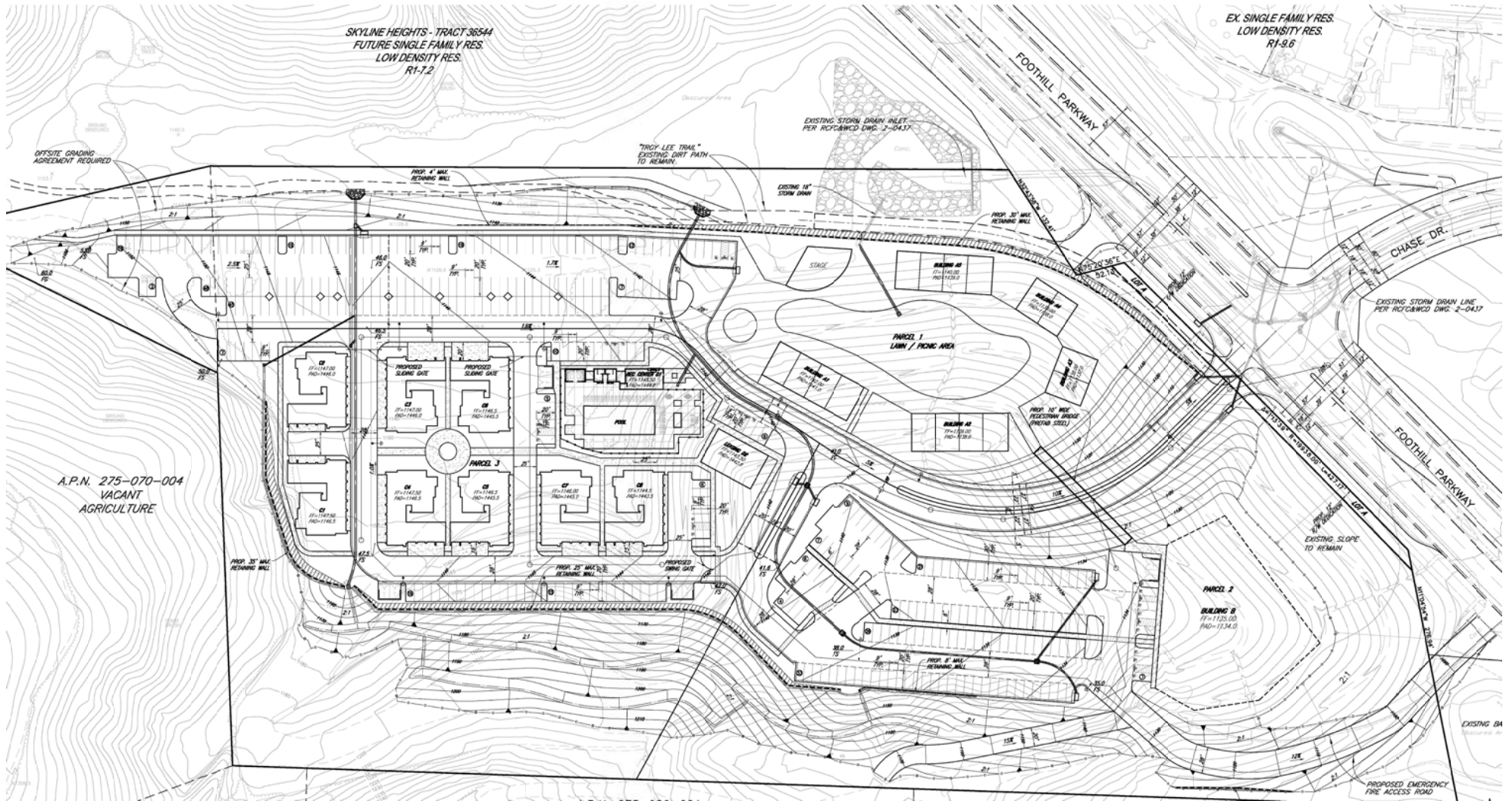
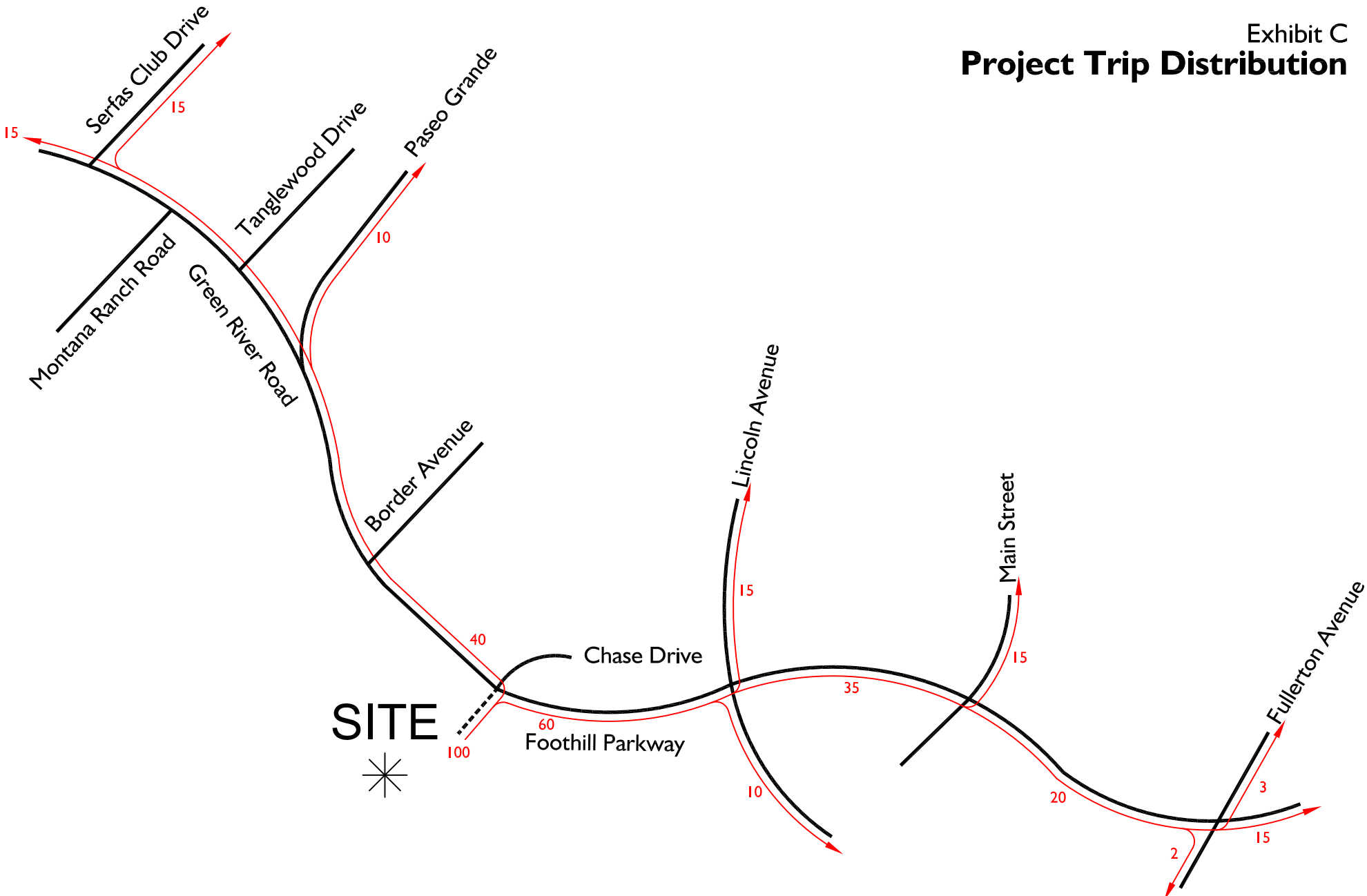


Exhibit C
Project Trip Distribution



Legend:

- 10 = Percent to/from Project
- = Project Driveway



Appendix G

VMT Model Data

The model outputs were checked for reasonableness. The total trips for residential uses for the project from the model was 559 daily trips, which results in a trip generation rate of 7.2 vehicles per dwelling unit per day, which is consistent with the rates published in the ITE Trip Generation Manual.

Next, the trip types from the model outputs for the project were checked. For homebased trips, all trip types were found to be consistent to general model expectations with the exception of "Home Based Work Strategic" (HBWS) trips. Based on the SCAG Model Validation Report, there are two types of home-based work trips: "direct" home-based work trips and "strategic" homebased work trips. "Direct" home-based work (HBWD) trips are trips that go directly between home and work, without any intermediate stops. "Strategic" home-based work (HBWS) trips are trips between home and work that include one or more intermediate stops, such as to drop-off or pick-up a passenger, to drop-off or pick-up a child at school, or for other reasons.

The SCAG Validation Report states that based on the 2012 California Household Travel Survey and SCAG Add-on Survey, HBWS trips are approximately 6% of the trips generated by a household. For the project zone, using the P-A trip generation, there were 46 HBWS trips, which results in approximately 8% of the trips, which is reasonable. However, when the OD trips were evaluated, the HBWS trips increased to approximately 378 trips, or approximately 42 percent of the trips (378/890). Therefore, the model outputs were post-processed to adjust for HBWS trips.

The model outputs were post processed by applying the ratio of HBWS to the total OD VMT minus HBWS VMT from the adjacent zone to the percentage of HBWS VMT from the adjacent zone to OD VMT minus HBWS VMT for the project zone. Essentially, the projects HBWS trips were replaced by the same percentage of HBWS trips compared to the other HB trips from the adjacent zone.

The table below shows the initial VMT outputs, the HBWS adjustments, and the resulting VMT/SP for the project zone for the base and future years.



VMT Post Processing Calculations

VMT	Base Year		Future Year	
	Project Zone	Adjacent Zone (1382)	Project Zone	Adjacent Zone (1382)
Total Homebased (HB) OD VMT (a) *	13,569	119,603	15,493	121,718
Total Hombased Work Strategic (HBWS) OD VMT (b)	8,012	15,464	10,127	18,945
Percent HBWS VMT (c=b/a)	59.0%	12.9%	65.4%	15.6%
HB OD VMT - HBWS (d=a-b)	5,558	104,139	5,367	102,773
HBWS VMT as Percent of (HB OD VMT - HBWS) (e=b/d)		14.8%		18.4%
Adjusted HBWS (f)	825	15,464	989	18,945
Adjusted HB OD VMT (g=d+f) **	6,383	119,603	6,356	121,718
Total service population (Population) (e)	247	5,930	247	5,982
VMT per service population (f = d/e)	25.9	20.2	25.7	20.3

	2012	ADJACENT ZONE	PROJECT TAZ
[SEQ #]		1382	1381
TAZ_ID		1382	1381
DISTRICT		4	4
POP		5,930	247
RES		5,923	247
HH		1,871	78
TOT_EMP		538	58
MS_HBWA_VMT			
MS_HBP_VMT			
MS_TotP_VMT			
MS_TotA_VMT			
OD_CarP_VMT		65,841	7,341
OD_CarA_VMT		69,836	7,461
OD_CarP_Trps			
OD_CarA_Trps			
OD_TrkP_VMT		378	922
OD_TrkA_VMT		378	923
OD_TrkP_Trps			
OD_TrkA_Trps			
OD_TotP_VMT		66,219	8,263
OD_TotA_VMT		70,214	8,384
HBWD_DPVTMT_RT		21,413	933
HBWS_DPVTMT_RT		3,695	1,815
HBO_DPVTMT_RT		10,210	515
HBCU_DPVTMT_RT		786	35
HBSC_DPVTMT_RT		351	17
HBSH_DPVTMT_RT		2,799	150
HBSP_DPVTMT_RT		5,141	293
WBO_DPVTMT_RT		978	112
OBO_DPVTMT_RT		3,560	248
HBWD_DPVTMT_CT		3,050	361
HBWS_DPVTMT_CT		1,807	1,116
HBO_DPVTMT_CT		4,942	268
HBCU_DPVTMT_CT		-	-
HBSC_DPVTMT_CT		-	-
HBSH_DPVTMT_CT		134	18
HBSP_DPVTMT_CT		2,617	169
WBO_DPVTMT_CT		1,314	117
OBO_DPVTMT_CT		3,380	231
HBWD_RTVMT_RT		2,999	358
HBWS_RTVMT_RT		3,174	2,165
HBO_RTVMT_RT		4,862	267
HBCU_RTVMT_RT		-	-
HBSC_RTVMT_RT		-	-
HBSH_RTVMT_RT		195	26
HBSP_RTVMT_RT		2,324	152
WBO_RTVMT_RT		601	54
OBO_RTVMT_RT		3,322	229
HBWD_RTVMT_CT		21,833	935
HBWS_RTVMT_CT		6,788	2,915
HBO_RTVMT_CT		10,630	530
HBCU_RTVMT_CT		732	31
HBSC_RTVMT_CT		262	13
HBSH_RTVMT_CT		4,078	215
HBSP_RTVMT_CT		4,780	269
WBO_RTVMT_CT		465	53
OBO_RTVMT_CT		3,632	250

	2040	ADJACENT ZONE	PROJECT TAZ
[SEQ #]		1382	1381
TAZ_ID		1382	1381
DISTRICT		4	4
POP		5981.9	247.3
RES		5974.707682	247.00266
HH		1926.6	78
TOT_EMP		689.8	58
MS_HBWA_VMT		11058.15625	1010.038513
MS_HBP_VMT		87145.78906	4087.811279
MS_TotP_VMT		97152.92969	4773.386719
MS_TotA_VMT		38731.86328	2691.916016
OD_CarP_VMT		68897.24219	8908.505859
OD_CarA_VMT		71775.88281	8866.307617
OD_CarP_Trps			
OD_CarA_Trps			
OD_TrkP_VMT		468.230469	1175.014404
OD_TrkA_VMT		468.62851	1175.541748
OD_TrkP_Trps			
OD_TrkA_Trps			
OD_TotA_VMT		72,245	10,042
OD_TotP_VMT		69,365	10,084
HBWD_DPVTMT_RT		18,345	795
HBWS_DPVTMT_RT		4,282	2,235
HBO_DPVTMT_RT		9,435	459
HBCU_DPVTMT_RT		503	24
HBSC_DPVTMT_RT		352	19
HBSH_DPVTMT_RT		2,752	135
HBSP_DPVTMT_RT		6,384	339
WBO_DPVTMT_RT		1,402	125
OBO_DPVTMT_RT		4,026	255
HBWD_DPVTMT_CT		4,141	376
HBWS_DPVTMT_CT		2,511	1,460
HBO_DPVTMT_CT		6,005	324
HBCU_DPVTMT_CT		-	-
HBSC_DPVTMT_CT		-	-
HBSH_DPVTMT_CT		200	21
HBSP_DPVTMT_CT		2,968	180
WBO_DPVTMT_CT		1,504	119
OBO_DPVTMT_CT		3,772	240
HBWD_RTVMT_RT		4,082	369
HBWS_RTVMT_RT		4,454	2,838
HBO_RTVMT_RT		5,946	321
HBCU_RTVMT_RT		-	-
HBSC_RTVMT_RT		-	-
HBSH_RTVMT_RT		291	31
HBSP_RTVMT_RT		2,645	161
WBO_RTVMT_RT		690	55
OBO_RTVMT_RT		3,725	237
HBWD_RTVMT_CT		18,485	801
HBWS_RTVMT_CT		7,699	3,595
HBO_RTVMT_CT		9,660	470
HBCU_RTVMT_CT		460	22
HBSC_RTVMT_CT		255	14
HBSH_RTVMT_CT		3,995	195
HBSP_RTVMT_CT		5,869	311
WBO_RTVMT_CT		660	59
OBO_RTVMT_CT		4,076	257