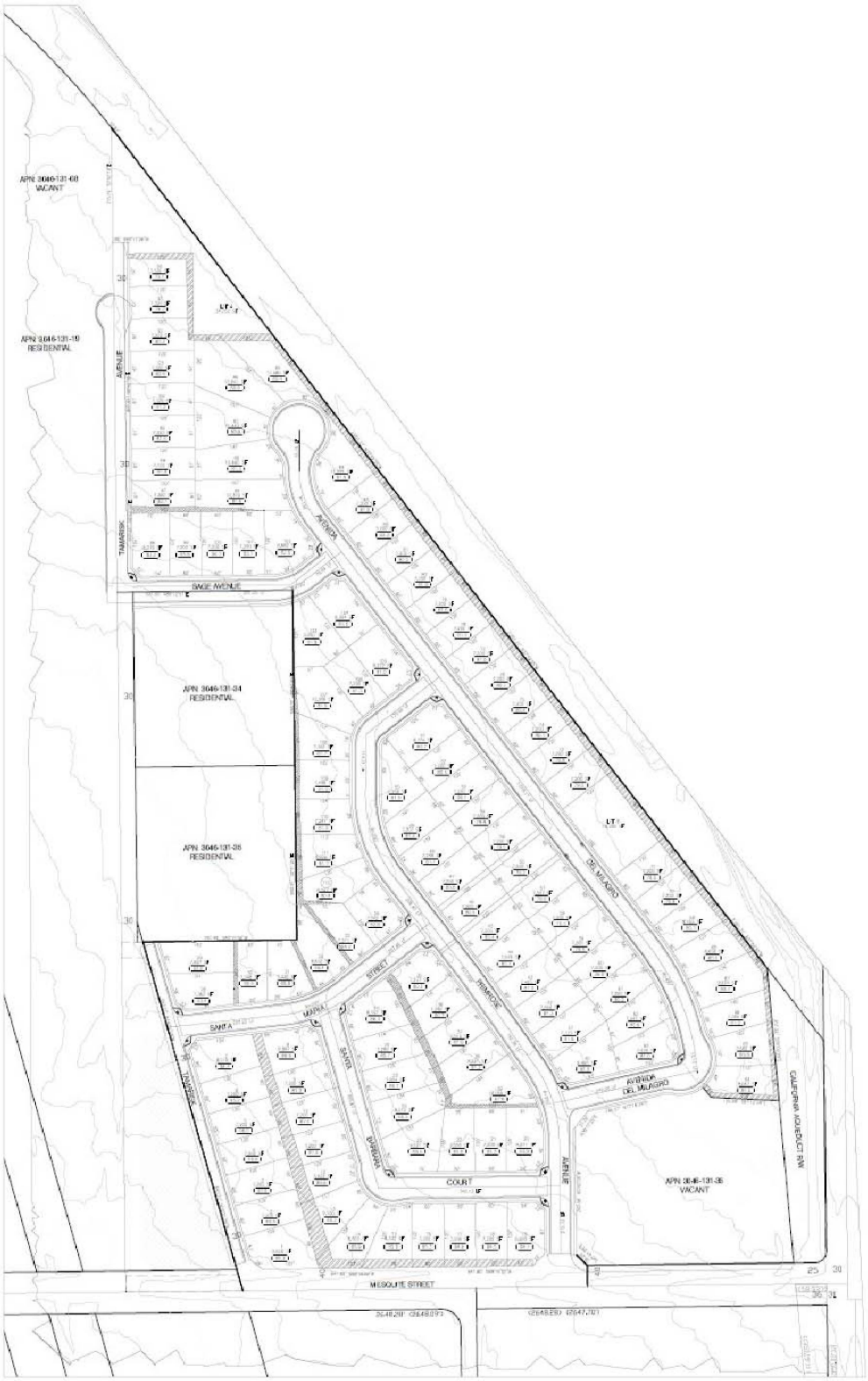
NWC MESQUITE STREET & MAPLE AVENUE
SINGLE FAMILY RESIDENTIAL PROJECT
TRAFFIC IMPACT STUDY
City of Hesperia, California



RK engineering group, inc.

TTM 20434
NWC MESQUITE STREET & MAPLE AVENUE
SINGLE FAMILY RESIDENTIAL PROJECT
TRAFFIC IMPACT STUDY
City of Hesperia, California

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1.0 Introduction

1.1 Purpose of Report & Study Objectives

The purpose of this analysis and report is to evaluate and assess the proposed Tentative Tract Map (TTM) 20434 NWC Mesquite Street & Maple Avenue Single Family Residential Project from a traffic and circulation standpoint.

This traffic study has been prepared in accordance with the traffic study guidelines, requirements, and level of service criteria for the City of Hesperia.

This study is prepared in accordance with the scope of work approved by the City of Hesperia staff and contained in Appendix A.

1.2 Site Location & Project Description

The project site is located north of Mesquite Street, east of Tamarisk Avenue, and west of Maple Avenue, in the City of Hesperia. The project site is vacant under existing conditions. The two existing single-family homes located adjacent to the project site along Tamarisk Avenue will remain. Surrounding land uses in the vicinity of the project site include residential homes and a public school.

The project consists of constructing and operating 112 single-family residential dwelling units.

Vehicular access to the adjoining roadway system will be provided via Mesquite Street and Tamarisk Avenue.

The project is planned to open in 2023 and is evaluated in a single phase.

Exhibit 1-1 shows the location of the proposed project. Exhibit 1-2 shows the proposed project's site plan.

1.3 Traffic Study Area & Analysis Scenarios

Exhibit 1-1 illustrates the project's site location map and traffic analysis study area.

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The study area consists of the following intersections listed below. The jurisdiction where each study intersection is located is also identified.

1. Escondido Avenue (NS) / Mesquite Street (EW); [County of San Bernardino]

2. Mesa Avenue (NS) / Mesquite Street (EW); [County of San Bernardino]

3. Fuente Avenue (NS) / Mesquite Street (EW); [City of Hesperia/County of San Bernardino]

4. Bandicoot Trail (NS) / Mesquite Street (EW); [City of Hesperia/County of San Bernardino]

5. Seine Avenue (NS) / Mesquite Street (EW); [County of San Bernardino]

6. Topaz Avenue (NS) / Mesquite Street (EW); [City of Hesperia/County of San Bernardino]

7. Opal Avenue – Turko Avenue (NS) / Mesquite Street (EW); [City of Hesperia]

8. Tamarisk Avenue (NS) / Mesquite Street (EW); [City of Hesperia]

9. Primrose Avenue (NS) / Mesquite Street (EW); [City of Hesperia]

10. Maple Avenue (NS) / Mesquite Street (EW); [City of Hesperia]

11. Tamarisk Avenue (NS) / Sage Street (EW); [City of Hesperia]

12. Escondido Avenue (NS) / The Marketplace – Kaiser Permanente Way (EW); [City of Hesperia] and

13. Escondido Avenue (NS) / Main Street (EW) [City of Hesperia].

The analysis evaluates traffic conditions for the study intersections under the following scenarios:

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- Existing Conditions;
- Existing Plus Project Conditions;
- Project Opening Year (2023) Without Project Conditions;
- Project Opening Year (2023) With Project Conditions;
- Project Opening Year (2023) With Cumulative Projects Without Project Conditions; and
- Project Opening Year (2023) With Cumulative Projects With Project Conditions.

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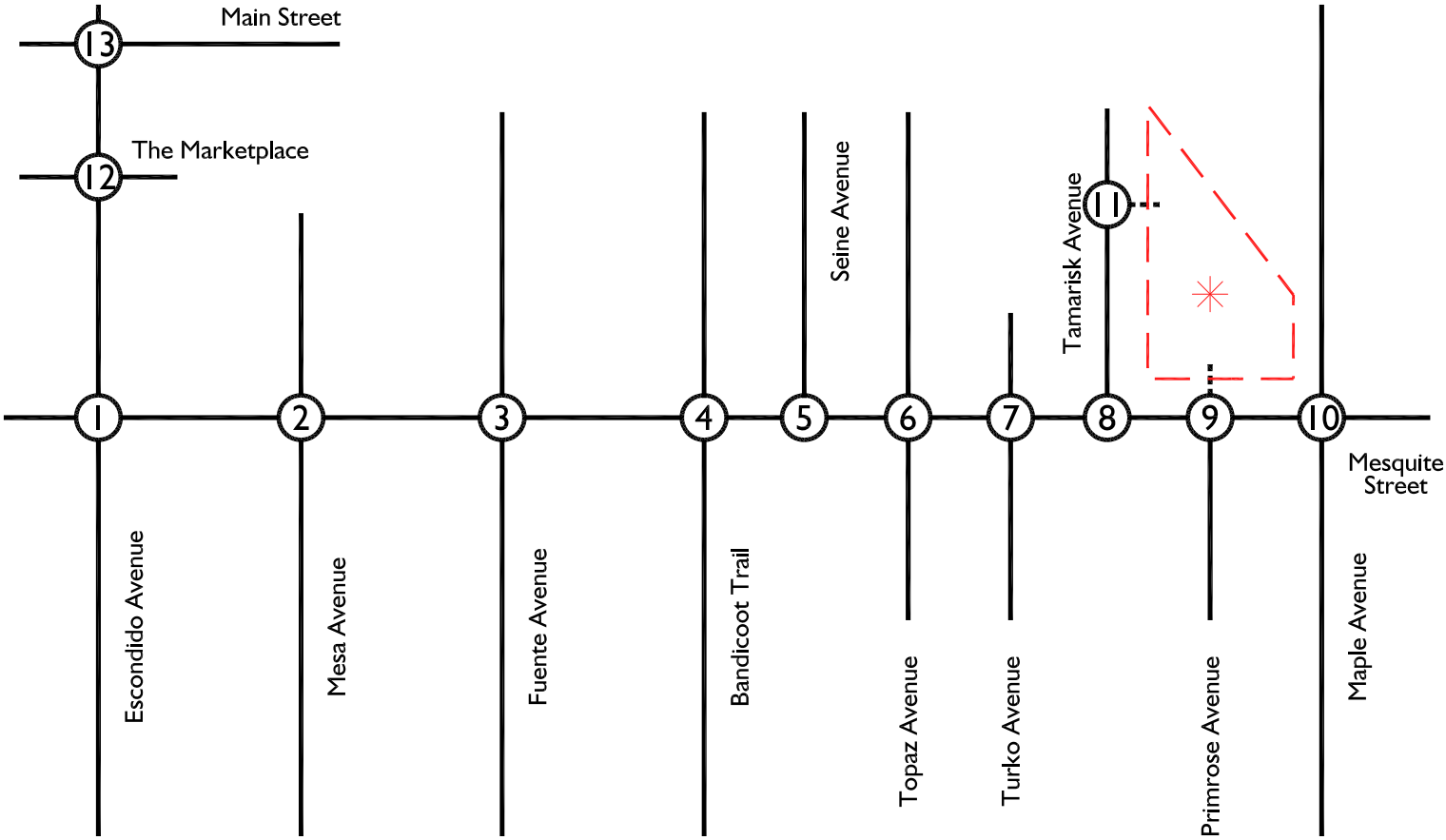
Exhibit 1-1
Location Map



Legend:

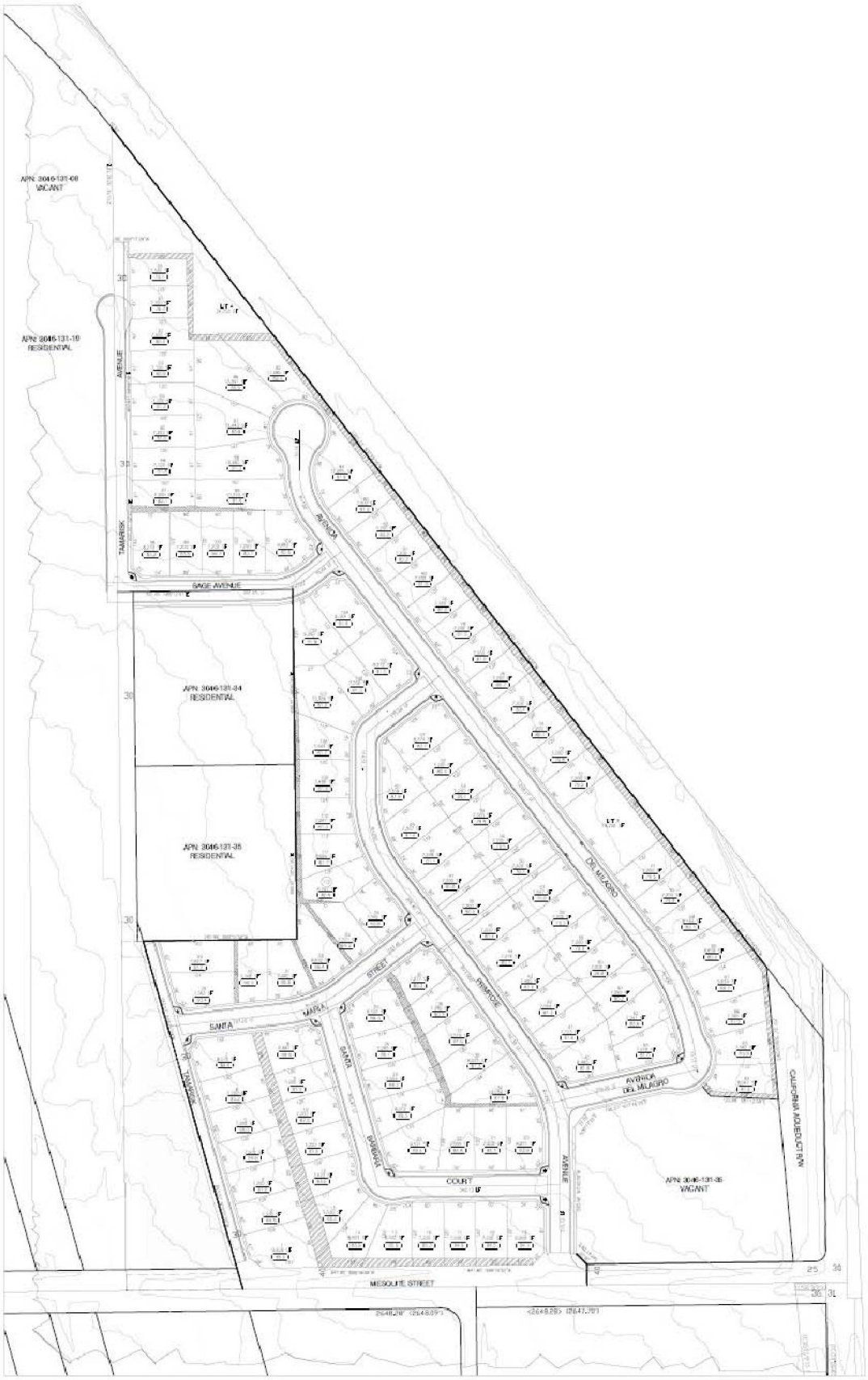
(1) = Study Area Intersection

--- = Project Site Boundary

▪▪▪ = Project Access

N

Exhibit 1-2
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 Hesperia.

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

2.1 Study Intersection Peak Hour Level of Service Analysis Methodology

In accordance with the *San Bernardino County Transportation Impact Study Guidelines, July 2019,* the Highway Capacity Manual Sixth Edition (HCM 6) is utilized as the technical guide in the evaluation of traffic operations.

The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of factors such 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.

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- **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.

2.1.1 HCM Methodology

Level of service is typically dependent on the quality of traffic flow at the intersection along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for 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.

For all-way stop-controlled intersections, average control delay per vehicle is used to determine the level of service.

For intersections with stop control on the minor approach only, the calculation of level of service is dependent on the occurrence of gaps occurring in the free-flow traffic movement of the major street, and the level of service is determined based on the worst individual movement on the stop-controlled minor approach or movements sharing a single lane on the stop-controlled minor approach.

Table 2-1 shows the level of service criteria based on the HCM methodology.

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Table 2-1
HCM Intersection LOS & Delay Ranges

LOS	Average Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
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	>80.00	>50.00

2.1.2 Analysis Parameters

The level of service analysis conducted in this study follows the assumptions and parameters detailed in the *San Bernardino County Transportation Impact Study Guidelines, July 2019,* for Existing and Background Analysis conditions.

2.2 LOS Performance Criteria & Thresholds for Requiring LOS Improvements

Per the *City of Hesperia General Plan 2010: Policy CI-2.*1, a minimum LOS D shall be maintained for most intersections, except for at freeway interchanges and on major corridors (Bear Valley Road, Main Street/Phelan Road, and Highway 395. For the purposes of this analysis, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all study intersections. The City of Hesperia is located within the Desert region of the San Bernardino County General Plan. Therefore, the City of Hesperia adheres to the following performance criteria for signalized and unsignalized intersections.

Signalized Intersections:

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

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

Unsignalized Intersections:

An operational improvement would be required if the study determines that either section a) or sections b) and c) occur:

a) The addition of project related traffic causes the intersection to degrade from an LOS C or better to an LOS D or worse.

OR

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

AND

c) One or both of the following conditions are met:

    1) The project adds ten (10) or more trips to any minor street approach.

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

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

- In the Desert regions, improvements should be identified that would achieve LOS C or better for case a) above or to pre-project LOS and delay for case b) above.

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3.0 Existing Conditions and Setting

3.1 Existing Traffic Controls & Intersection Geometrics

RK conducted a field review of the study area on January 25th, 2022. Exhibit 3-1 identifies the existing roadway conditions within the study. The number of through traffic lanes for existing roadways and existing intersections controls are identified. The type of traffic control and number of lanes at an intersection are key inputs for the calculation of level of service.

3.2 Existing Conditions Traffic Volumes

Existing conditions intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts taken in November 2021 during typical weekday conditions. The AM peak hour traffic volumes were determined by counting the two-hour peak period between 7:00 AM and 9:00 AM and using the highest hour within that two-hour peak period. Similarly, the PM peak hour traffic volumes were identified by counting the two-hour peak period between 4:00 PM and 6:00 PM and using the highest hour within that two-hour peak period. The traffic count worksheets are included in Appendix B.

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

3.3 Existing Conditions Study Intersection Level of Service

The intersection level of service analysis for Existing Conditions is shown in Table 3-1.

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

As previously discussed in Section 2.2 of this study, The City of Hesperia has varying standards for acceptable LOS for signalized and unsignalized intersections.

As shown in Table 3-1, the following study intersection is operating deficiently (LOS E or worse):

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Deficient Intersection:

1. Escondido Avenue (NS) / Mesquite Street (EW)

    - AM Peak Hour- LOS E (47.0 secs)

3.4 Hesperia General Plan Circulation Element

The project's setting, within the context of the City's Traffic Circulation Plan is shown in Exhibit 3-3. The following roadway segments are classified within the project analysis study area:

- Escondido Avenue (along Mesquite Street) – Arterial
- Fuente Avenue (north of Mesquite Street) – Rural Collector
- Fuente Avenue (south of Mesquite Street) – Collector
- Mesquite Street (west of Topaz Avenue, outside of City boundary) – Arterial
- Mesquite Street (east of Topaz Avenue) – Secondary Arterial
- Maple Avenue – (north of Ranchero Road) - Arterial

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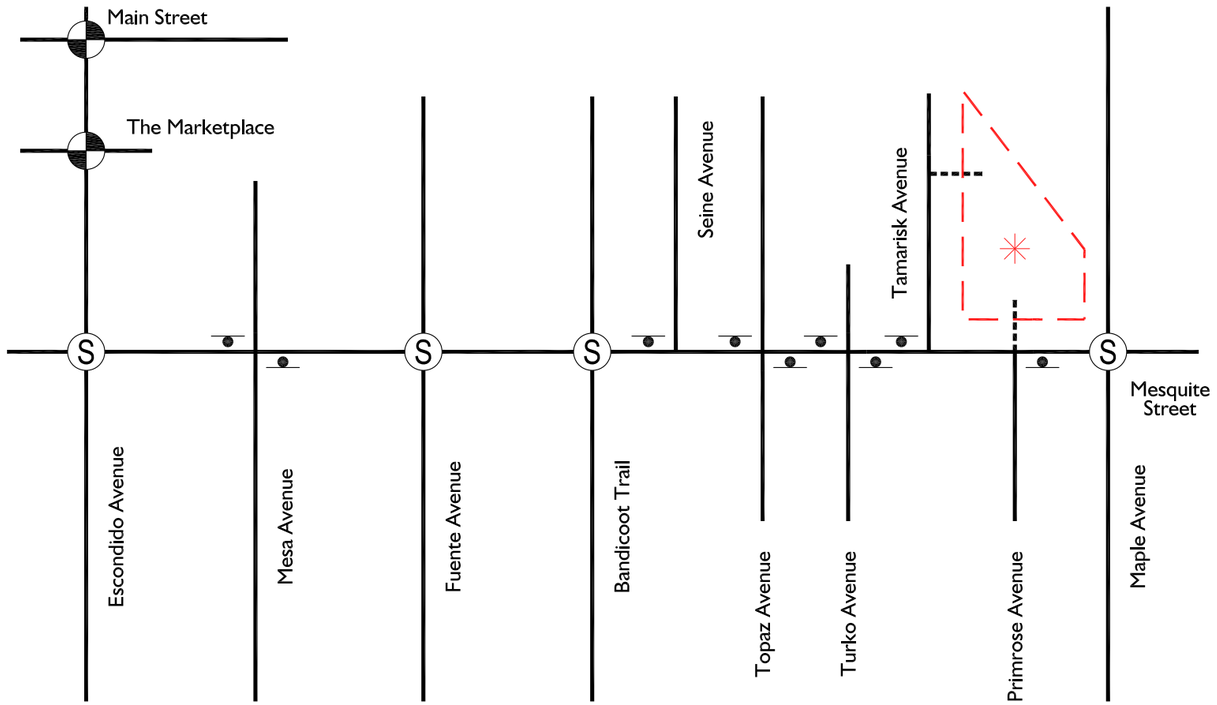
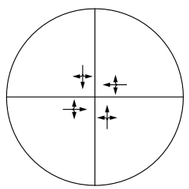
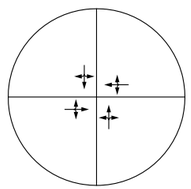
Exhibit 3-1

Existing Traffic Controls & Study Intersection Geometry

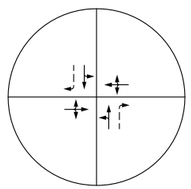




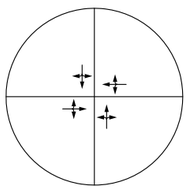
1. Escondido Avenue (NS) & Mesquite Street (EW)



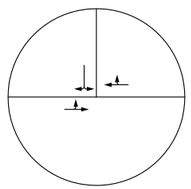
2. Mesa Avenue (NS) & Mesquite Avenue (EW)



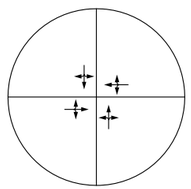
3. Fuente Avenue (NS) & Mesquite Avenue (EW)



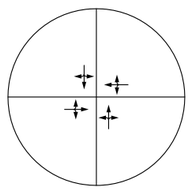
4. Bandicoot Trail (NS) & Mesquite Avenue (EW)



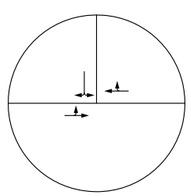
5. Seine Avenue(NS) & Mesquite Avenue (EW)



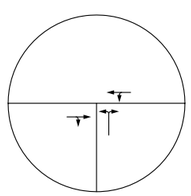
6. Topaz Avenue (NS) & Mesquite Avenue (EW)



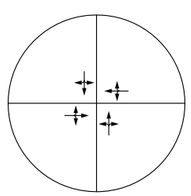
7. Turko Avenue (NS) & Mesquite Avenue (EW)



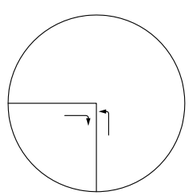
8. Tamarisk Avenue (NS) & Mesquite Avenue (EW)



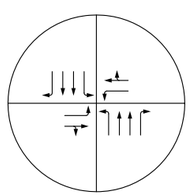
9. Primrose Avenue (NS) & Mesquite Avenue (EW)



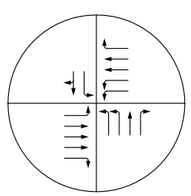
10. Maple Avenue (NS) & Mesquite Avenue (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

- = Traffic Signal
- (S) = All Way Stop
- = Stop Sign
- = Defacto Right Turn

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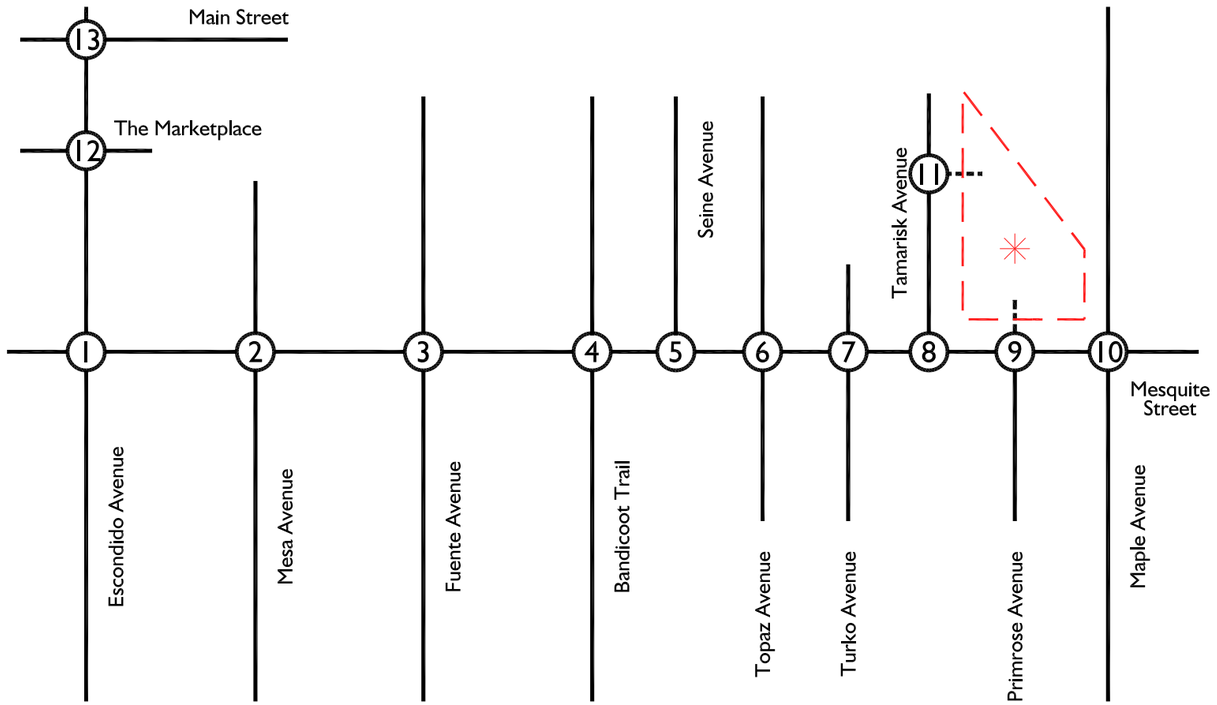
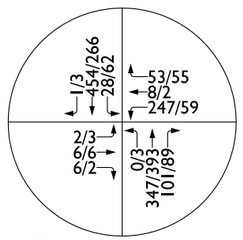
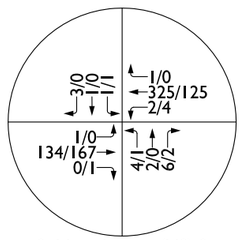
Exhibit 3-2

Existing Conditions Traffic Volumes

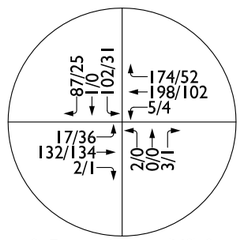




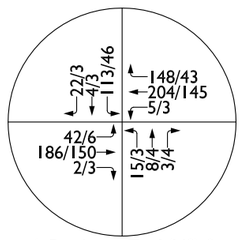
1. Escondido Avenue (NS) & Mesquite Street (EW)



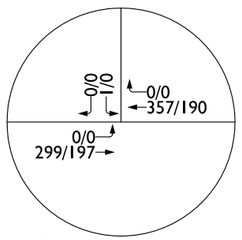
2. Mesa Avenue (NS) & Mesquite Street (EW)



3. Fuente Avenue (NS) & Mesquite Street (EW)



4. Bandicoot Trail (NS) & Mesquite Street (EW)



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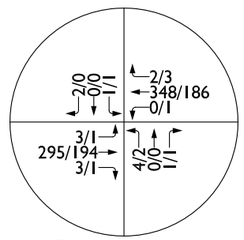
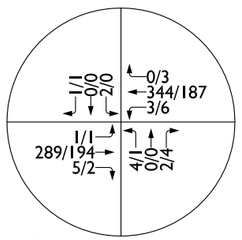


6. Topaz Avenue (NS) & Mesquite Street (EW)



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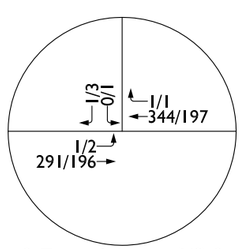
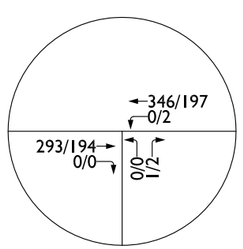
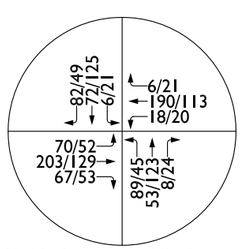


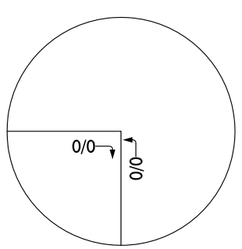
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



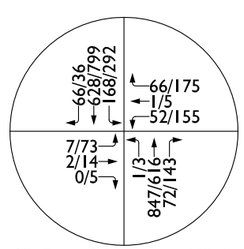
9. Primrose Avenue (NS) & Mesquite Street (EW)



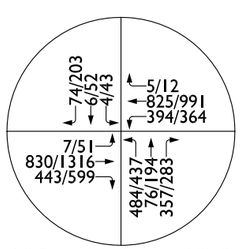
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

10/20 = AM/PM Peak Hour Volumes

N

Exhibit 3-3

City of Hesperia Traffic Circulation Plan

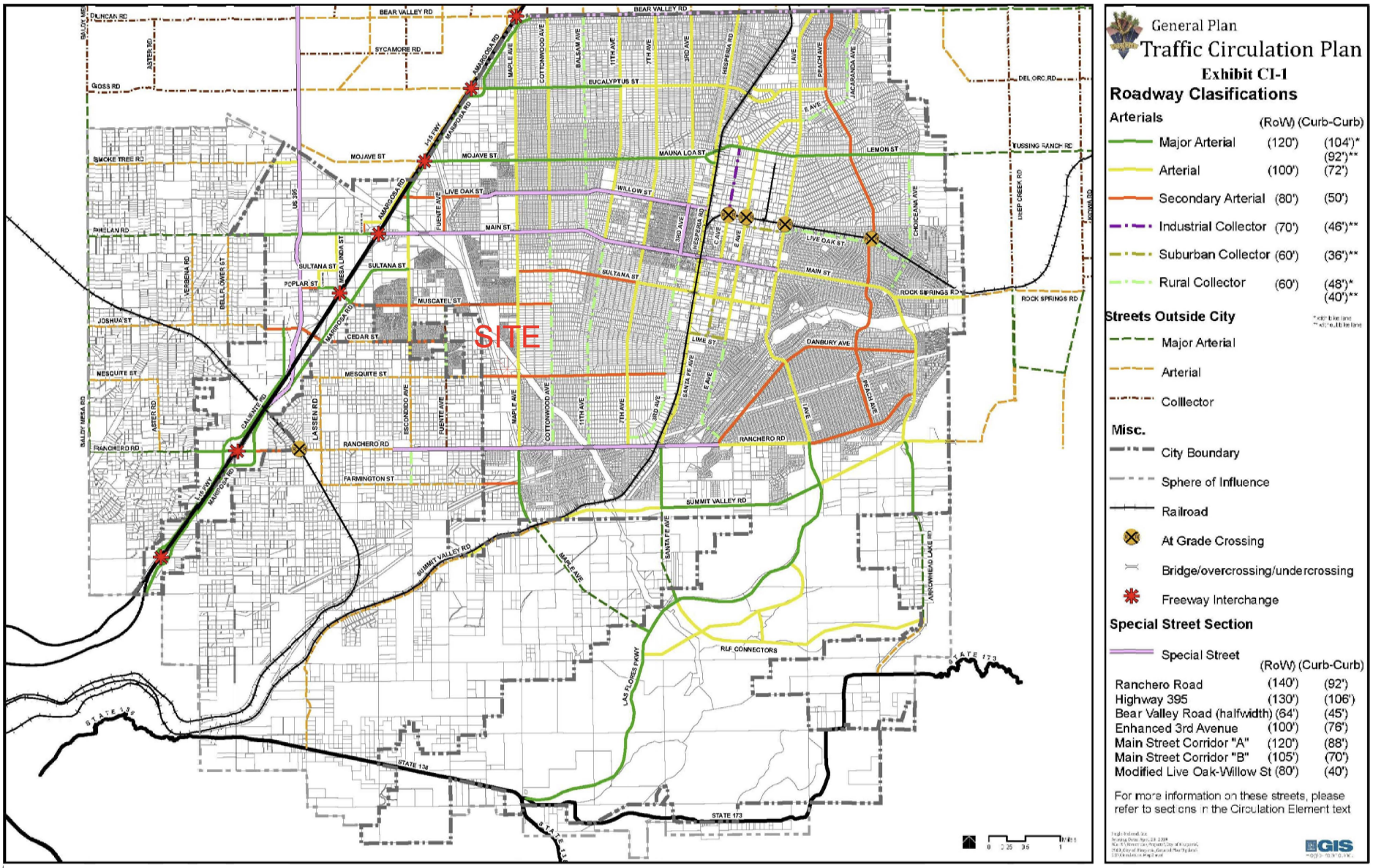


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Table 3-1
Study Intersection LOS Analysis Summary
Existing Conditions

	Intersection	Traffic Control[3]	Methodology	Delay (Secs)[1,2]		Level of Service	
				AM	PM	AM	PM
1.	Escondido Avenue (NS) / Mesquite Street (EW)	AWS	HCM	**47.0**	19.0	**E**	C
2.	Mesa Avenue (NS) / Mesquite Street (EW)	CSS	HCM	11.9	10.8	B	B
3.	Fuente Avenue (NS) / Mesquite Street (EW)	AWS	HCM	11.8	8.2	B	A
4.	Bandicoot Trail (NS) / Mesquite Street (EW)	AWS	HCM	12.0	8.9	B	A
5.	Seine Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.1	0.0	B	A
6.	Topaz Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.4	12.4	B	B
7.	Opal Avenue - Turko Avenue (NS) / Mesquite Street (EW)	CSS	HCM	13.7	10.2	B	B
8.	Tamarisk Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.3	10.1	B	B
9.	Primrose Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.0	9.5	A	A
10.	Maple Avenue (NS) / Mesquite Street (EW)	AWS	HCM	12.4	11.3	B	B
11.	Tamarisk Avenue (NS) / Sage Street (EW)	- -	- -	- -	- -	- -	- -
12.	Escondido Avenue (NS) / The Marketplace - Kaiser Permanente Way (EW)	TS	HCM	9.8	14.5	A	B
13.	Escondido Avenue (NS) / Main Street (EW)	TS	HCM	23.7	39.2	C	D

[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
AWS = All-Way Stop
CSS = Cross Street Stop

[4] Study intersection under existing conditions serves as a bend and therefore has zero level of service delay.

4.0 Project Traffic

4.1 Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for this development.

Trip generation is typically estimated based on the trip generation rates from the latest Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 4-1 shows the ITE trip generation rates for the trip generation analysis of the project land uses.

Utilizing the trip generation rates from Table 4-1, Table 4-2 summarizes the daily and peak hour trip generation for weekday conditions for the proposed project.

As shown in Table 4-2, based on the ITE trip generation rates:

- The proposed project is forecast to generate approximately 1,056 daily trips which include approximately 78 AM peak hour trips, approximately 105 PM peak hour trips.

4.2 Project Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site 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 study area.

The project trip distribution is shown in Exhibit 4-1.

4.2.1 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 can be

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notable. However, the traffic projections in this study are conservative because no modal split reduction is applied to the projections.

4.3 Project Traffic Assignment and Volumes

The assignment of project traffic to the adjoining roadway system is based upon the project's trip generation, trip distribution, arterial highway, and local street systems that would be in place by the time of initial occupancy of the site.

The project is expected to further develop the following study intersections to accommodate the project within the study area's transportation system:

- Primrose Avenue (NS) / Mesquite Street (EW); and
- Tamarisk Avenue (NS) / Sage Street (EW).

Project traffic volumes are shown on Exhibit 4-2.

4.4 Cumulative Projects Traffic

Information on future projects in the vicinity of the study area has been provided by the City of Hesperia staff for inclusion in this analysis and is shown in Table 4-3.

The list of cumulative projects provided are for projects that have been officially submitted for land use review, are waiting public hearing approval, or have been approved by the public hearing body.

Table 4-3 shows the land uses and corresponding trip generation for the nearby cumulative projects provided by public agencies.

A location map of the cumulative projects is shown in Exhibit 4-3.

Cumulative projects traffic volumes are shown in Exhibit 4-4.

In reality, some of the cumulative projects may be downsized or may not be developed by project opening year (2023). In addition, many of the cumulative projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associate with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the cumulative projects.

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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 percent (2%) per year for project opening year (2023) conditions, which would already capture and account for most projects in the area. Applied to the Year 2021 existing traffic volumes, this factor results in a 4.0% growth in existing volumes to the near-term horizon year 2023. The growth rate methodology is considered conservative since it is applied to all movements in all the study intersections.

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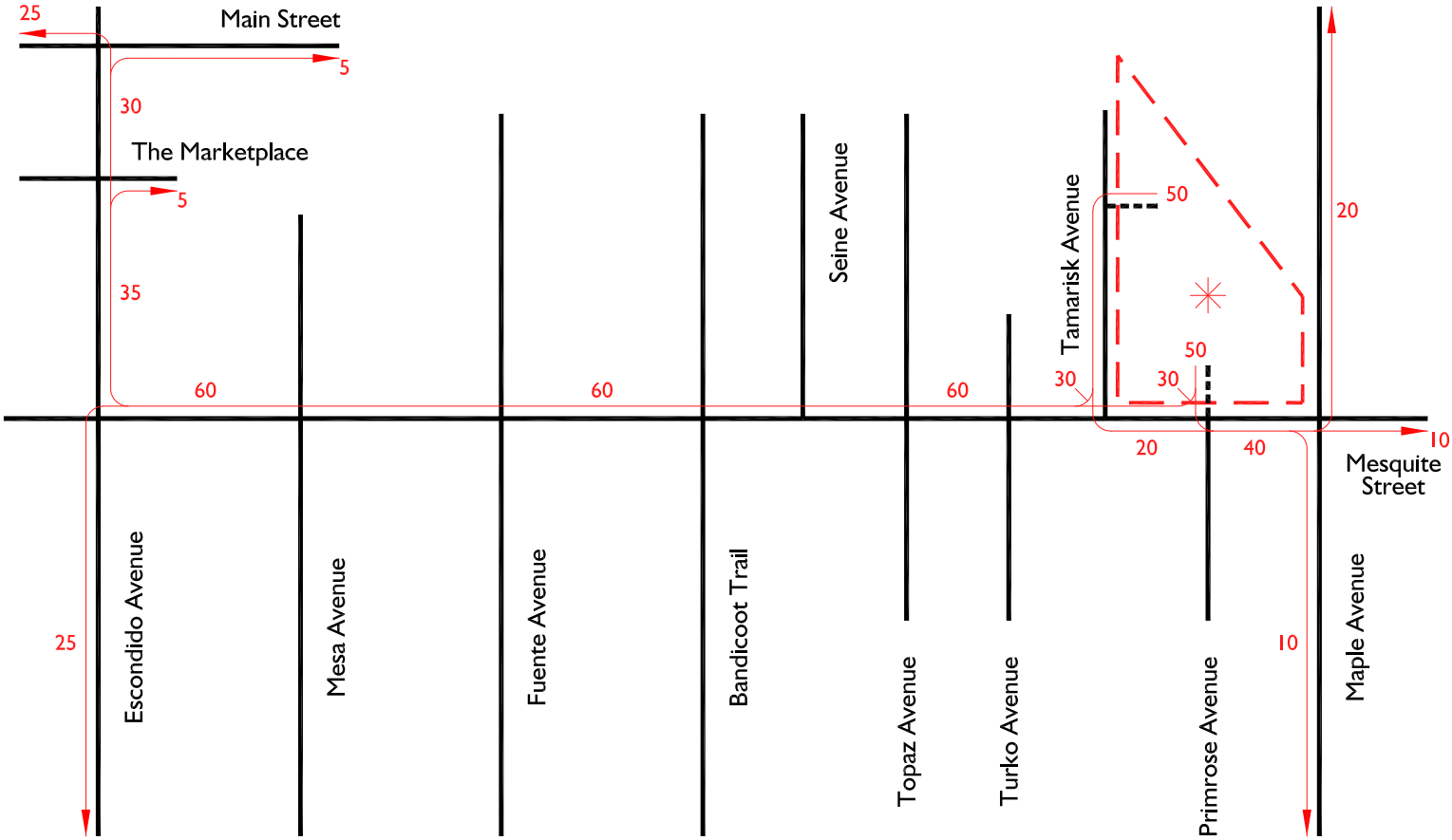
Exhibit 4-1

Project Trip Distribution

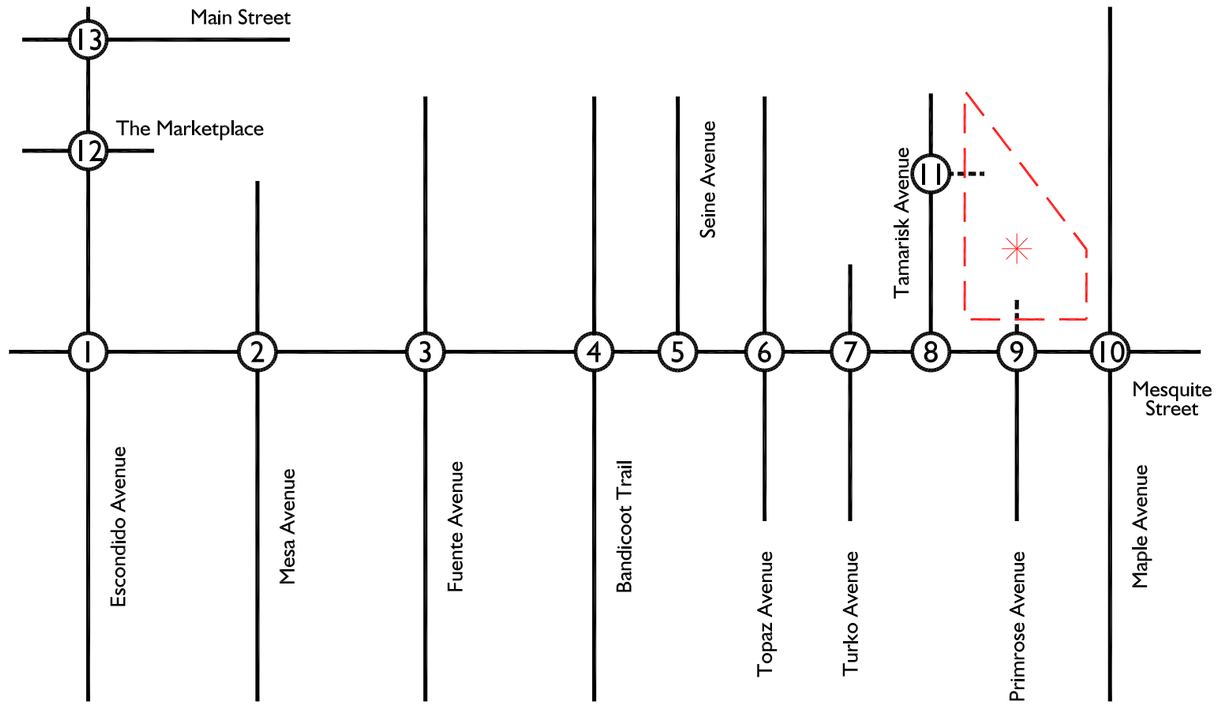


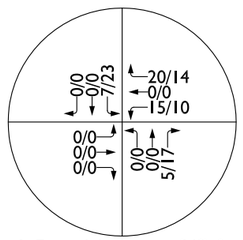
Legend:

10 = Percent to/from Project

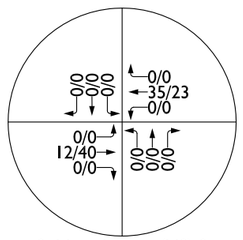
N

Project Traffic Volumes

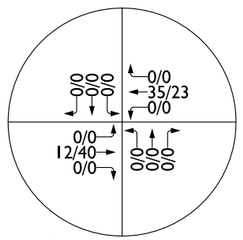




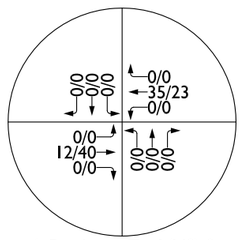
1. Escondido Avenue (NS) & Mesquite Street (EW)



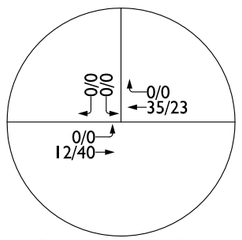
2. Mesa Avenue (NS) & Mesquite Street (EW)



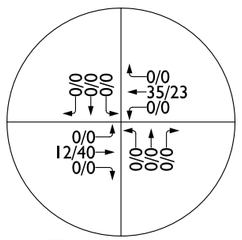
3. Fuente Avenue (NS) & Mesquite Street (EW)



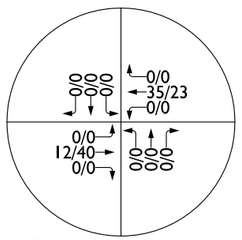
4. Bandicoot Trail (NS) & Mesquite Street (EW)



5. Seine Avenue(NS) & Mesquite Street (EW)



6. Topaz Avenue (NS) & Mesquite Street (EW)



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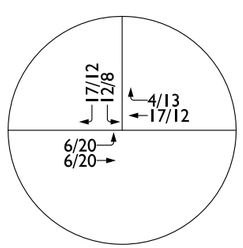
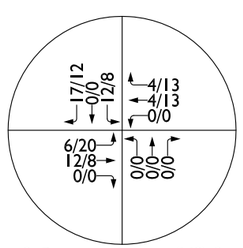
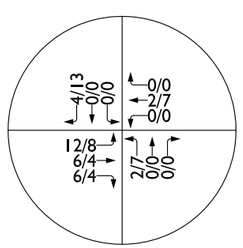


8. Tamarisk Avenue (NS) & Mesquite Street (EW)



9. Primrose Avenue (NS) & Mesquite Street (EW)



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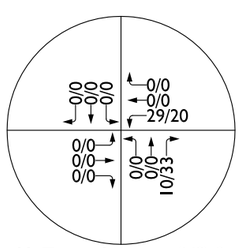

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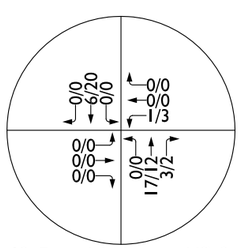
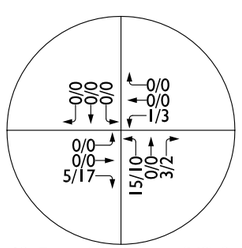


12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

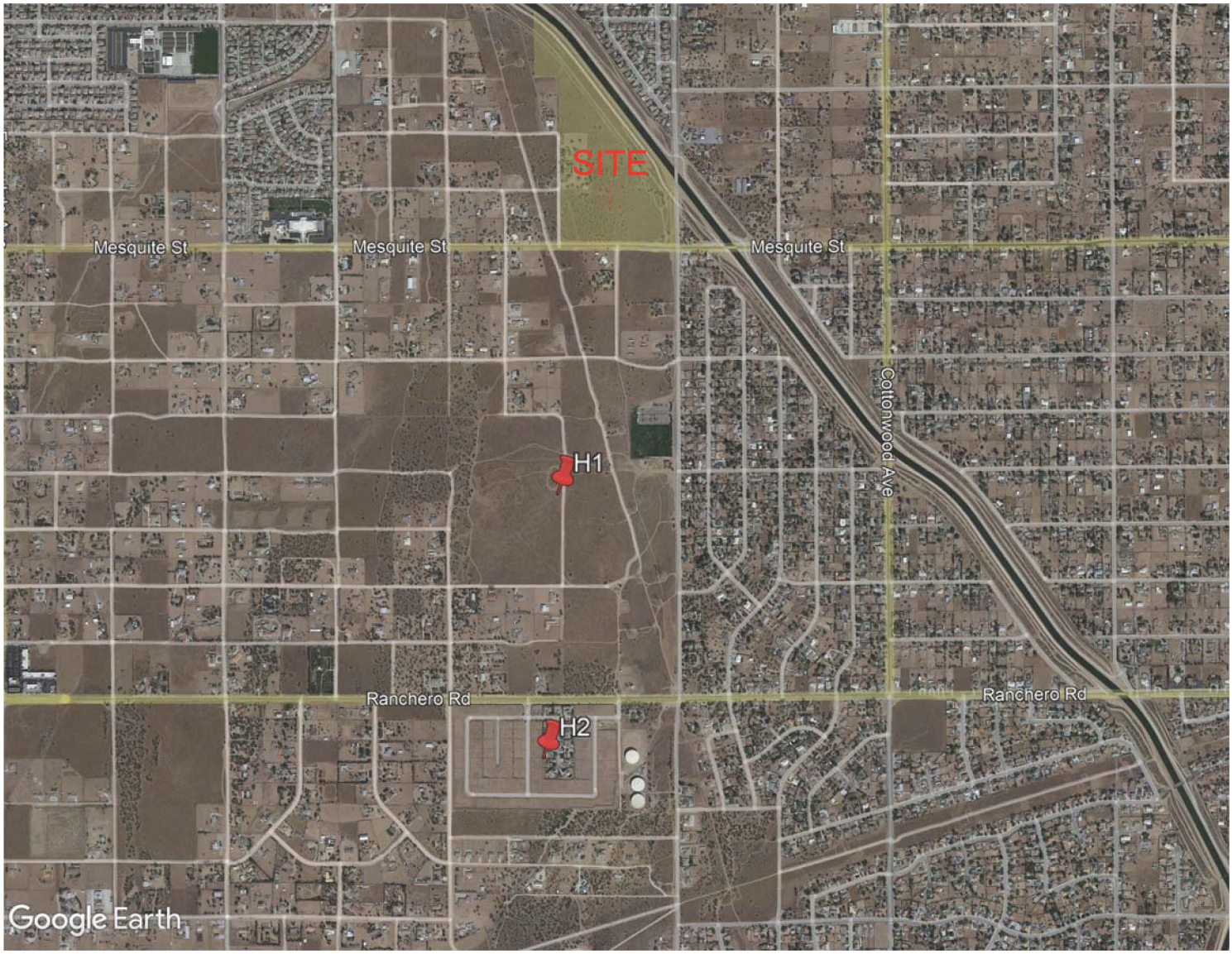
Legend:

10/20 = AM/PM Peak Hour Volumes

N

Exhibit 4-3

Cumulative Projects Location Map



NOTE: See report for full list of cumulative projects and traffic analysis zones (TAZ).

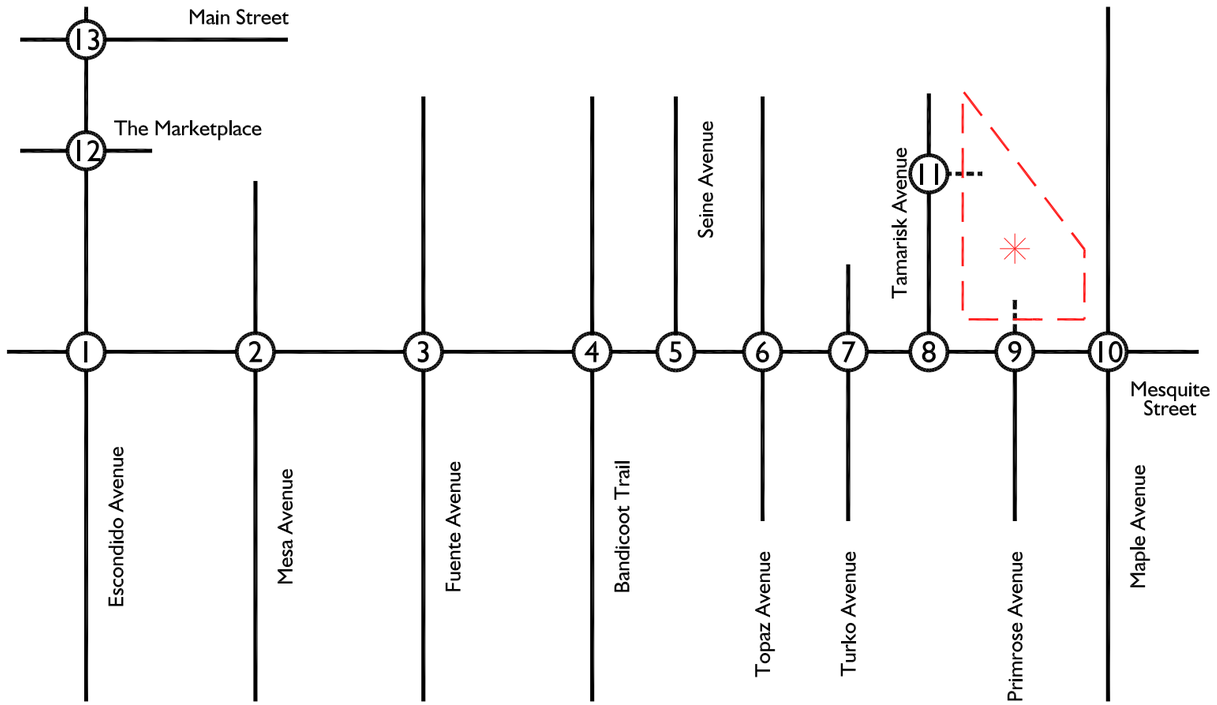
Legend:

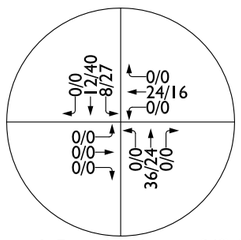
● = City of Hesperia Cumulative Project

N

Exhibit 4-4

Cumulative Projects Traffic Volumes





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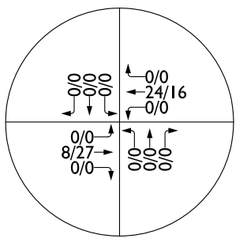

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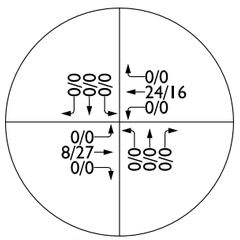
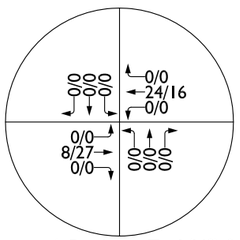
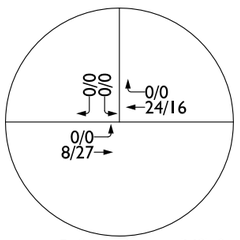


3. Fuente Avenue (NS) & Mesquite Street (EW)



4. Bandicoot Trail (NS) & Mesquite Street (EW)



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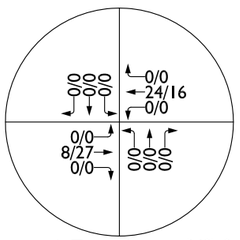

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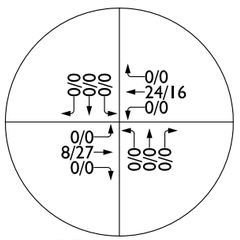

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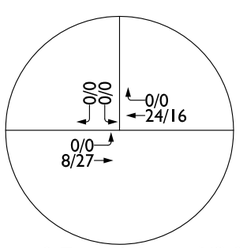
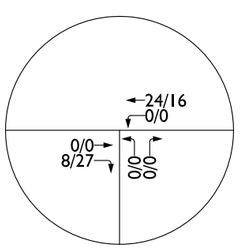


8. Tamarisk Avenue (NS) & Mesquite Street (EW)



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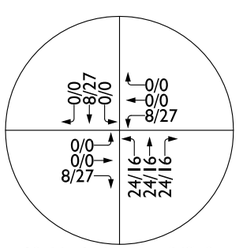

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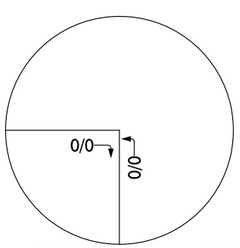

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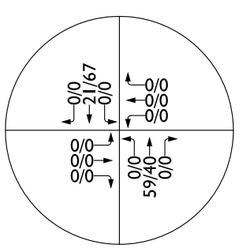
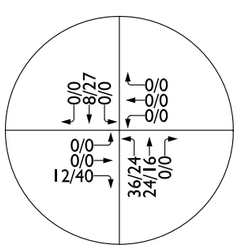


12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

10/20 = AM/PM Peak Hour Volumes

N

TABLE 4-1

ITE Trip Generation Rates[1]

Land Use	Units[2]	ITE Code	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Single Family Homes	DU	210	0.18	0.52	0.70	0.59	0.35	0.94	9.43

[1] Source: *2021 ITE Trip Generation Manual (11th Edition).*

[2] DU = Dwelling Units.

TABLE 4-2

Project Trip Generation[1]

Proposed Land Uses									
Land Use (ITE Code)	**Quantity**	**Units[2]**	**AM**			**PM**			**Daily**
			In	**Out**	**Total**	**In**	**Out**	**Total**	
Single Family Homes	112	DU	20	58	78	66	39	105	1,056

[1] Source: *2021 ITE Trip Generation Manual (11th Edition).*

[2] DU = Dwelling Units.

Table 4-3
Cumulative Projects Trip Generation[1]

ID No.	Jurisdiction	Project Name / Case Number	Land Use	Quantity	Units[2]	Peak Hour						Daily
						AM			PM			
						In	Out	Total	In	Out	Total	
TAZ 1												
H1	**Hesperia**	Frontier Homes - TT 17980	Single Family Homes	351	DU	63	183	246	207	123	330	3,310
H2	**Hesperia**	Villas at Bellas Rosa Ranch - TT 14744	Single Family Homes	104	DU	19	54	73	61	36	98	981
TAZ 1 Total						**82**	**237**	**319**	**268**	**159**	**428**	**4,291**
Total Cumulative Projects Trip Generation						***82***	***237***	***319***	***268***	***159***	***428***	***4,291***

[1] Cumulative Projects information provided by City of Hesperia staff.

[2] DU = Dwelling Units.

5.0 Existing Plus Project Conditions

5.1 Method of Projection

To assess Existing Plus Project traffic conditions, existing traffic volumes shown in Exhibit 3-2 are combined with the project traffic volumes shown in Exhibit 4-2.

5.2 Existing Plus Project Conditions Traffic Volumes

Existing Plus Project Conditions traffic volumes are shown in Exhibit 5-1.

5.3 Existing Plus Project Conditions Study Intersection Level of Service

The intersection level of service analysis for Existing Plus Project Conditions is shown in Table 5-1. The level of service analysis compares without project conditions to with project conditions.

The level of service calculations for Existing Plus Project Conditions is provided in Appendix D respectively.

As shown in Table 5-1, the following study intersection is forecast to require improvements based on agency-established thresholds of significance:

Deficient Intersection:

1. Escondido Avenue (NS) / Mesquite Street (EW)
    - AM Peak Hour – LOS F (55.6 secs)

The level of service calculations for Existing Plus Project Conditions – Improvements is provided in Appendix E.

5.4 Existing Plus Project Conditions Recommended Improvements

The recommended improvements needed to restore traffic operations to acceptable levels of service and/or pre-project levels, and reduce the project's impact to less than significant levels for Existing Plus Project traffic conditions are provided in Table 5-2.

As shown in Table 5-1, assuming implementation of the recommended intersection improvements, the projects impact for Existing Plus Project traffic conditions would be considered less than significant.

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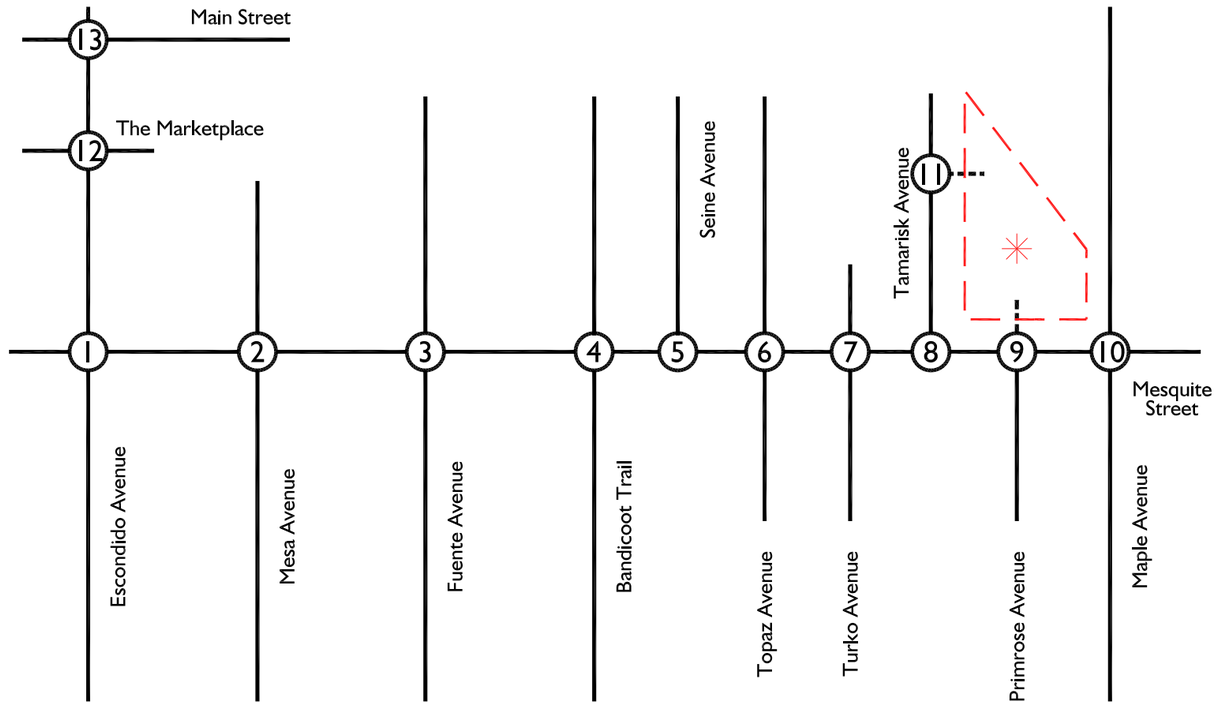
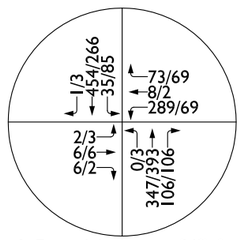
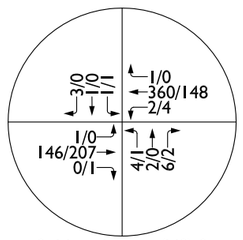
Exhibit 5-1

Existing Plus Project Conditions Traffic Volumes

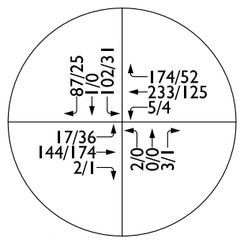




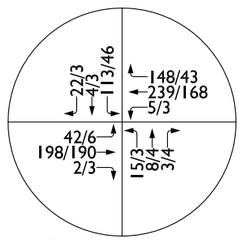
1. Escondido Avenue (NS) & Mesquite Street (EW)



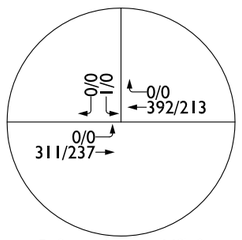
2. Mesa Avenue (NS) & Mesquite Street (EW)



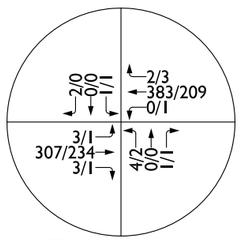
3. Fuente Avenue (NS) & Mesquite Street (EW)



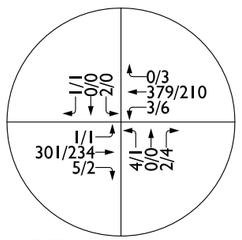
4. Bandicoot Trail (NS) & Mesquite Street (EW)



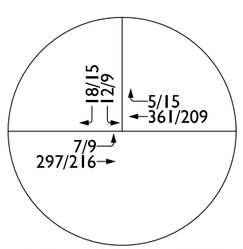
5. Seine Avenue(NS) & Mesquite Street (EW)



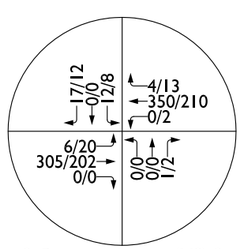
6. Topaz Avenue (NS) & Mesquite Street (EW)



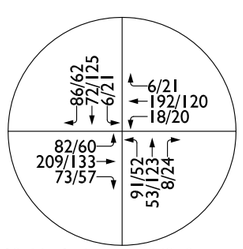
7. Turko Avenue (NS) & Mesquite Street (EW)



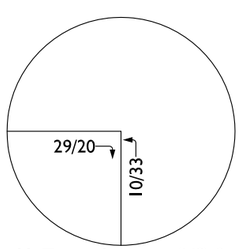
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



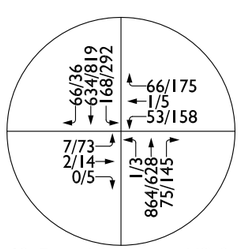
9. Primrose Avenue (NS) & Mesquite Street (EW)



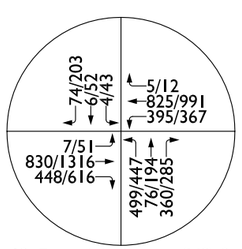
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

10/20 = AM/PM Peak Hour Volumes

N

Table 5-1
Study Intersection LOS Analysis Summary
Existing Plus Project Conditions

	Intersection	Traffic Control[3]	Methodology	Without Project				With Project							
				Delay (Secs)[1,2]		Level of Service		Delay (Secs)[1,2]		Increase in Delay		Level of Service		Requires Improvement?	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Escondido Avenue (NS) / Mesquite Street (EW)	AWS	HCM	**47.0**	19.0	**E**	C	**55.6**	22.3	8.6	3.3	**F**	C	**Yes**	No
	With Improvements[5]	AWS	HCM	- -	- -	- -	- -	**46.1**	16.7	-0.9	-2.3	**E**	C	- -	- -
2.	Mesa Avenue (NS) / Mesquite Street (EW)	CSS	HCM	11.9	10.8	B	B	12.4	11.4	0.5	0.6	B	B	No	No
3.	Fuente Avenue (NS) / Mesquite Street (EW)	AWS	HCM	11.8	8.2	B	A	12.9	8.6	1.1	0.4	B	A	No	No
4.	Bandicoot Trail (NS) / Mesquite Street (EW)	AWS	HCM	12.0	8.9	B	A	13.2	9.4	1.2	0.5	B	A	No	No
5.	Seine Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.1	0.0	B	A	14.7	0.0	0.6	0.0	B	A	No	No
6.	Topaz Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.4	12.4	B	B	15.2	13.4	0.8	1.0	C	B	No	No
7.	Opal Avenue - Turko Avenue (NS) / Mesquite Street (EW)	CSS	HCM	13.7	10.2	B	B	14.3	10.6	0.6	0.4	B	B	No	No
8.	Tamarisk Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.3	10.1	B	B	12.5	11.2	2.2	1.1	B	B	No	No
9.	Primrose Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.0	9.5	A	A	13.0	11.6	3.0	2.1	B	B	No	No
10.	Maple Avenue (NS) / Mesquite Street (EW)	AWS	HCM	12.4	11.3	B	B	13.0	11.8	0.6	0.5	B	B	No	No
11.	Tamarisk Avenue (NS) / Sage Street (EW)[4]	CSS	HCM	- -	- -	- -	- -	8.7	8.7	- -	- -	A	A	No	No
12.	Escondido Avenue (NS) / The Marketplace - Kaiser Permanente Way (EW)	TS	HCM	9.8	14.5	A	B	9.9	14.6	0.1	0.1	A	B	No	No
13.	Escondido Avenue (NS) / Main Street (EW)	TS	HCM	23.7	39.2	C	D	24.1	40.1	0.4	0.9	C	D	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

4 Study intersection under existing conditions serves as a bend and therefore has zero level of service delay.

5 Improvements identified achieve a LOS that is equal to or better than the pre-project LOS and delay under the AM peak hour.

TABLE 5-2
Existing Plus Project Conditions
Recommended Improvements - Intersections[1]

Improvement #	Intersection	Recommended Improvements
IMP - 1	1. Escondido Avenue (NS) at Mesquite Street (EW)	- Widen northbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn/thru lane and one right-turn lane. - Widen southbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn lane and one thru/right-turn lane.

[1] Recommended improvements consist of the minimum necessary improvements to improve operations to achieve a LOS that is equal to or better than the pre-project LOS and delay under the AM peak hour.

6.0 Project Opening Year (2023) Conditions

6.1 Method of Projection

Project opening year is planned for 2023. To assess Project Opening Year (2023) traffic conditions, the build-up method of projection is utilized. Ambient area wide growth rate is combined to existing traffic conditions to model future traffic conditions. As directed by City staff, an annual growth rate of two percent (2%) per year for two (2) years is utilized to account for ambient background traffic growth in the study area (i.e. 4% total ambient growth). Project related traffic impacts are assessed for Project Opening Year (2023) by comparing the level of service for "without" and "with" project scenarios.

6.2 Project Opening Year (2023) Conditions Traffic Volumes

Project Opening Year (2023) Without Project Conditions traffic volumes are shown in Exhibit 6-1.

Project Opening Year (2023) With Project Conditions traffic volumes are shown in Exhibit 6-2.

6.3 Project Opening Year (2023) Conditions Study Intersection Level of Service

The intersection level of service analysis for Project Opening Year (2023) Without Cumulative Projects Conditions is shown in Table 6-1. The level of service analysis compares without project conditions to with project conditions.

The level of service calculations for Project Opening Year (2023) Conditions without and with project are provided in Appendix F and G respectively.

As shown in Table 6-1, the following study intersection is forecast to require improvements based on agency-established thresholds of significance:

Deficient Intersection:

1. Escondido Avenue (NS) / Mesquite Street (EW)
    - AM Peak Hour – LOS F (69.8 secs)
    - PM Peak Hour – LOS D (25.7 secs)

The level of service calculations for Project Opening Year (2023) With Project Conditions – Improvements is provided in Appendix H.

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6.4 Project Opening Year (2023) Without Cumulative Projects Conditions Recommended Improvements

The recommended improvements needed to restore traffic operations to acceptable levels of service and/or pre-project levels, and reduce the project's impact to less than significant levels for Project Opening Year (2023) Without Cumulative Projects traffic conditions are provided in Table 6-2.

As shown in Table 6-1, assuming implementation of the recommended intersection improvements, the projects impact for Project Opening Year (2023) Without Cumulative Projects traffic conditions would be considered less than significant.

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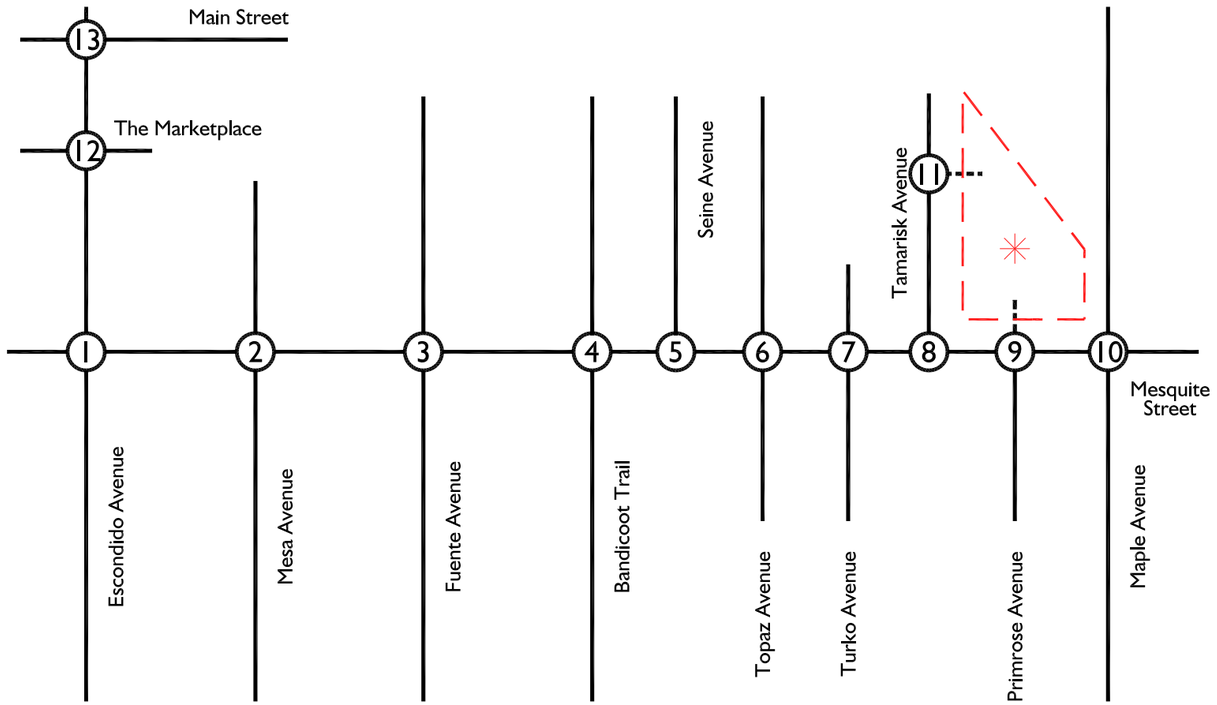
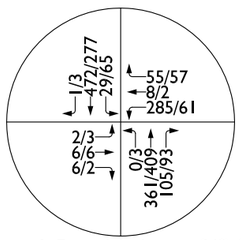
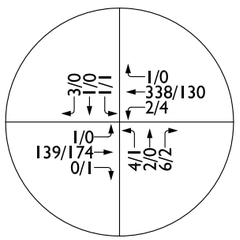
Exhibit 6-1

Project Opening Year (2023) Without Project Conditions Traffic Volumes

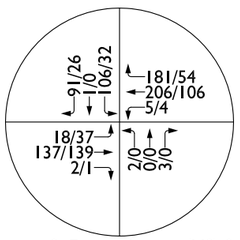




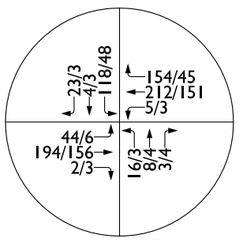
1. Escondido Avenue (NS) & Mesquite Street (EW)



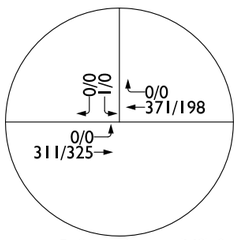
2. Mesa Avenue (NS) & Mesquite Street (EW)



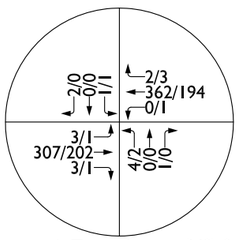
3. Fuente Avenue (NS) & Mesquite Street (EW)



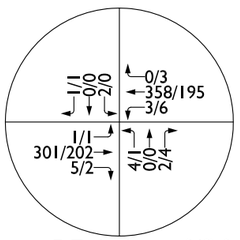
4. Bandicoot Trail (NS) & Mesquite Street (EW)



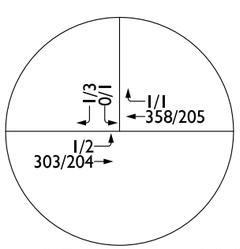
5. Seine Avenue(NS) & Mesquite Street (EW)



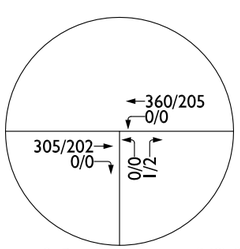
6. Topaz Avenue (NS) & Mesquite Street (EW)



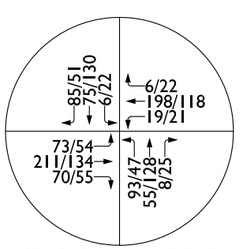
7. Turko Avenue (NS) & Mesquite Street (EW)



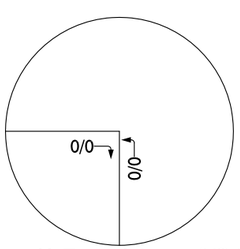
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



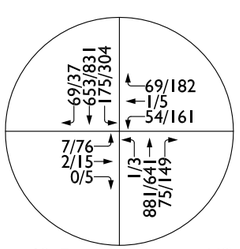
9. Primrose Avenue (NS) & Mesquite Street (EW)



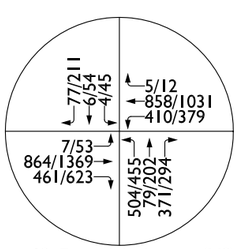
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

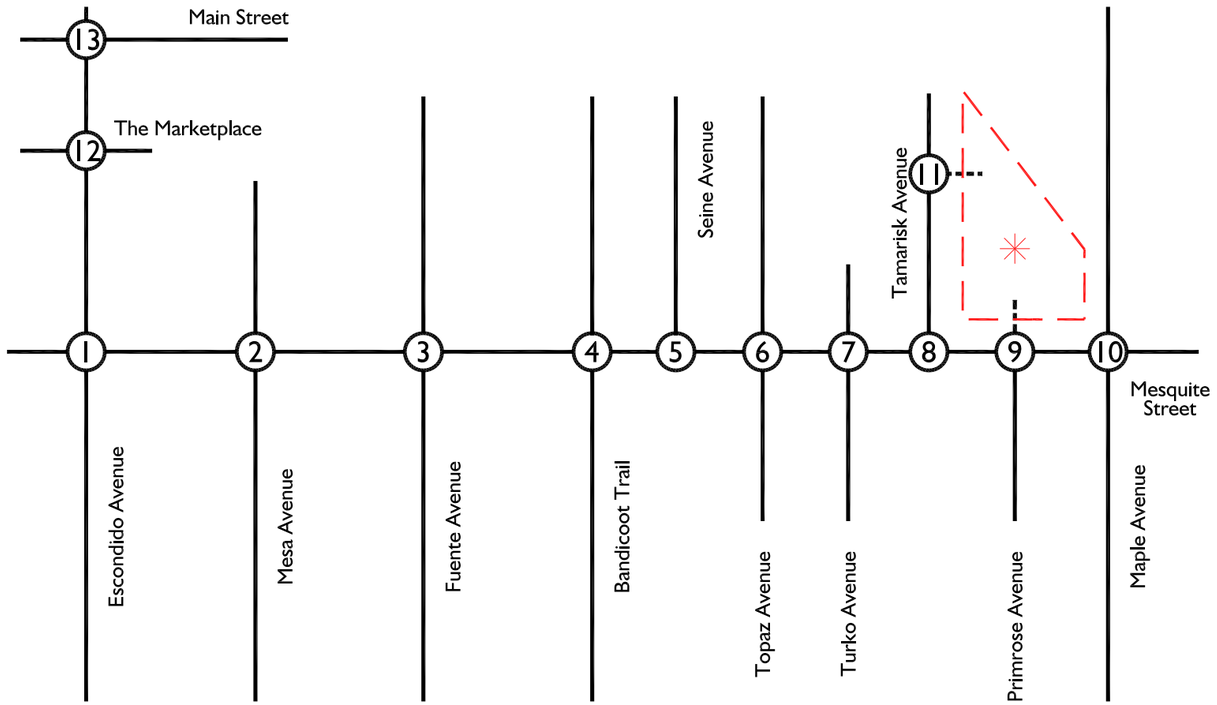
Legend:

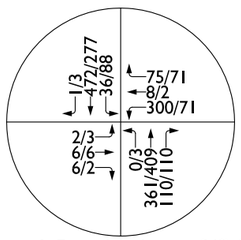
10/20 = AM/PM Peak Hour Volumes

N

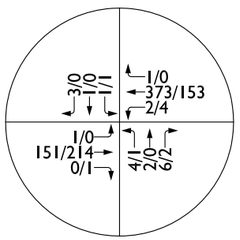
Exhibit 6-2

Project Opening Year (2023) With Project Conditions Traffic Volumes

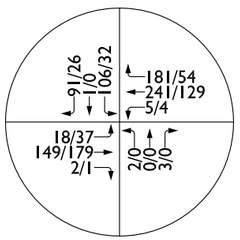




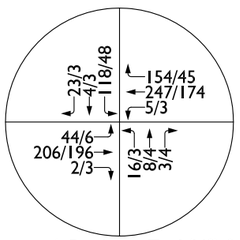
1. Escondido Avenue (NS) & Mesquite Street (EW)



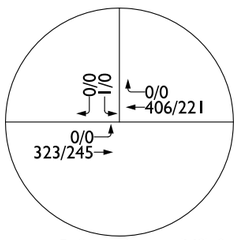
2. Mesa Avenue (NS) & Mesquite Street (EW)



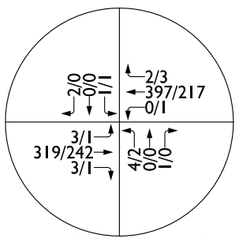
3. Fuente Avenue (NS) & Mesquite Street (EW)



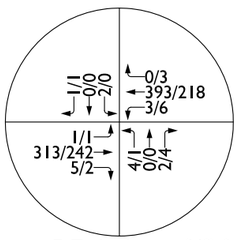
4. Bandicoot Trail (NS) & Mesquite Street (EW)



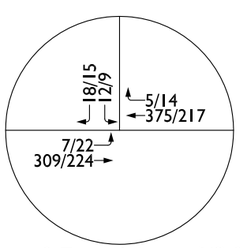
5. Seine Avenue(NS) & Mesquite Street (EW)



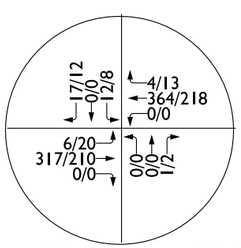
6. Topaz Avenue (NS) & Mesquite Street (EW)



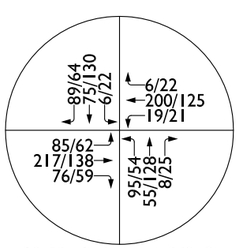
7. Turko Avenue (NS) & Mesquite Street (EW)



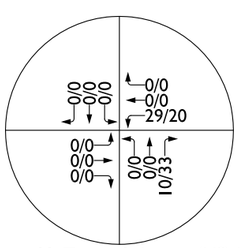
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



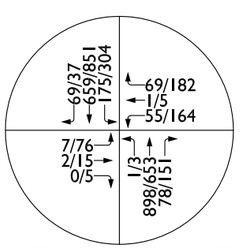
9. Primrose Avenue (NS) & Mesquite Street (EW)



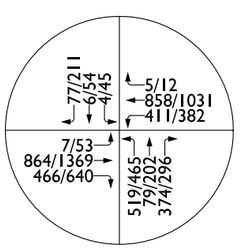
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

10/20 = AM/PM Peak Hour Volumes

N

Table 6-1
Study Intersection LOS Analysis Summary
Project Opening Year (2023) Conditions

	Intersection	Traffic Control[3]	Methodology	Without Project				With Project							
				Delay (Secs)[1,2]		Level of Service		Delay (Secs)[1,2]		Increase in Delay		Level of Service		Requires Improvement?	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Escondido Avenue (NS) / Mesquite Street (EW)	AWS	HCM	**57.4**	21.2	**F**	C	**69.8**	25.7	**12.4**	4.5	**F**	D	**Yes**	**Yes**
	With Improvements[5]	AWS	HCM	- -	- -	- -	- -	**54.4**	18.2	-3.0	-3.0	**F**	C	- -	- -
2.	Mesa Avenue (NS) / Mesquite Street (EW)	CSS	HCM	12.1	10.9	B	B	12.6	11.6	0.5	0.7	B	B	No	No
3.	Fuente Avenue (NS) / Mesquite Street (EW)	AWS	HCM	12.3	8.3	B	A	13.5	8.7	1.2	0.4	B	A	No	No
4.	Bandicoot Trail (NS) / Mesquite Street (EW)	AWS	HCM	12.7	9.0	B	A	13.9	9.6	1.2	0.6	B	A	No	No
5.	Seine Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.4	0.0	B	A	15.1	0.0	0.7	0.0	C	A	No	No
6.	Topaz Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.8	12.7	B	B	15.6	13.7	0.8	1.0	C	B	No	No
7.	Opal Avenue - Turko Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.0	10.3	B	B	14.7	10.7	0.7	0.4	B	B	No	No
8.	Tamarisk Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.4	10.2	B	B	12.7	11.3	2.3	1.1	B	B	No	No
9.	Primrose Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.1	9.6	B	A	13.4	11.7	3.3	2.1	B	B	No	No
10.	Maple Avenue (NS) / Mesquite Street (EW)	AWS	HCM	13.0	11.7	B	B	13.8	12.3	0.8	0.6	B	B	No	No
11.	Tamarisk Avenue (NS) / Sage Street (EW)[4]	CSS	HCM	- -	- -	- -	- -	8.7	8.7	- -	- -	A	A	No	No
12.	Escondido Avenue (NS) / The Marketplace - Kaiser Permanente Way (EW)	TS	HCM	10.2	15.4	B	B	10.3	15.5	0.1	0.1	B	B	No	No
13.	Escondido Avenue (NS) / Main Street (EW)	TS	HCM	25.1	44.9	C	D	25.5	46.3	0.4	1.4	C	D	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

4 Study intersection under existing conditions serves as a bend and therefore has zero level of service delay.

5 Improvements identified achieve an acceptable LOS or a LOS that is equal to or better than the pre-project LOS and delay.

TABLE 6-2
Project Opening Year (2023) Conditions
Recommended Improvements - Intersections[1]

Improvement #	Intersection	Recommended Improvements
IMP - 1	1. Escondido Avenue (NS) at Mesquite Street (EW)	- Widen northbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn/thru lane and one right-turn lane. - Widen southbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn lane and one thru/right-turn lane.

[1] Recommended improvements consist of the minimum necessary improvements to improve operations to achieve an acceptable LOS or a LOS that is equal to or better than the pre-project LOS and delay.

7.0 Project Opening Year (2023) With Cumulative Projects Conditions

7.1 Method of Projection

Project Opening Year (2023) With Cumulative Projects traffic conditions are assessed by applying a two percent (2%) annual growth rate for two (2) years on top of existing traffic conditions and including traffic associated with reasonably foreseeable development projects located in the vicinity of the analysis study area (i.e. 4% total ambient growth). Project related traffic impacts are assessed for Project Opening Year (2023) With Cumulative Projects by comparing the level of service for "without" and "with" project scenarios.

7.2 Project Opening Year (2023) With Cumulative Projects Conditions Traffic Volumes

Project Opening Year (2023) With Cumulative Projects Without Project Conditions traffic volumes are shown in Exhibit 7-1.

Project Opening Year (2023) With Cumulative Projects Without Project Conditions traffic volumes are shown in Exhibit 7-2.

7.3 Project Opening Year (2023) With Cumulative Projects Conditions Study Intersection Level of Service

The intersection level of service analysis for Project Opening Year (2023) With Cumulative Projects Conditions is shown in Table 7-1. The level of service analysis compares without project conditions to with project conditions.

The level of service calculations for Project Opening Year (2023) With Cumulative Projects Conditions without and with project are provided in Appendix I and J respectively.

As shown in Table 6-1, the following study intersection is forecast to require improvements based on agency-established thresholds of significance:

Deficient Intersection:

1. Escondido Avenue (NS) / Mesquite Street (EW)
    - AM Peak Hour – LOS F (86.1 secs)
    - PM Peak Hour – LOS E (37.3 secs)

4000 westerly place, ste. 280
newport beach, ca 92660
(949) 474-0809
rkengineer.com

The level of service calculations for Project Opening Year (2023) With Cumulative Projects With Project Conditions – Improvements is provided in Appendix K.

7.4 Project Opening Year (2023) With Cumulative Projects Conditions Recommended Improvements

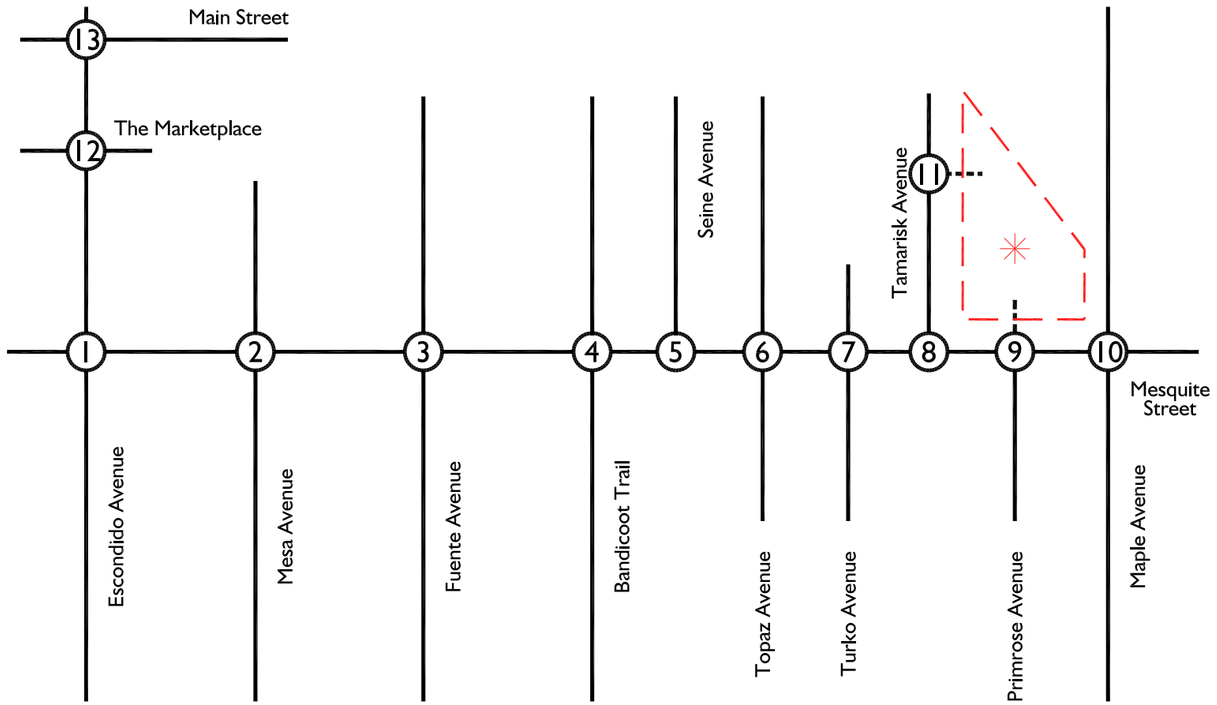
The recommended improvements needed to restore traffic operations to acceptable levels of service and/or pre-project levels, and reduce the project's impact to less than significant levels for Project Opening Year (2023) With Cumulative Projects traffic conditions are provided in Table 7-2.

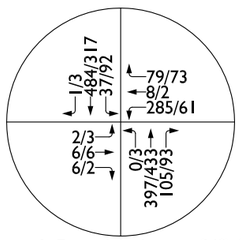
As shown in Table 7-1, assuming implementation of the recommended intersection improvements, the projects impact for Project Opening Year (2023) With Cumulative Projects traffic conditions would be considered less than significant.

4000 westerly place, ste. 280
newport beach, ca 92660
(949) 474-0809
rkengineer.com

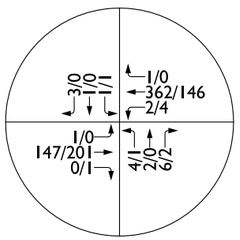
Exhibit 7-1

Project Opening Year (2023) With Cumulative Projects Conditions Traffic Volumes

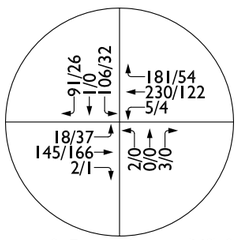




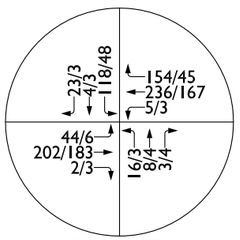
1. Escondido Avenue (NS) & Mesquite Street (EW)



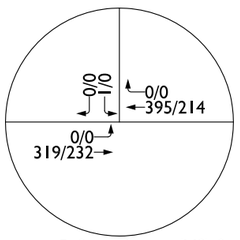
2. Mesa Avenue (NS) & Mesquite Street (EW)



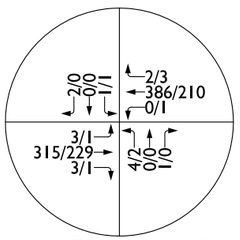
3. Fuente Avenue (NS) & Mesquite Street (EW)



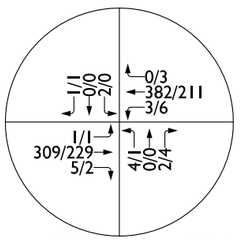
4. Bandicoot Trail (NS) & Mesquite Street (EW)



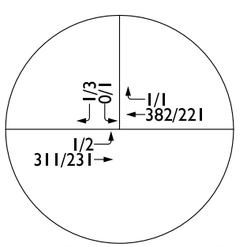
5. Seine Avenue(NS) & Mesquite Street (EW)



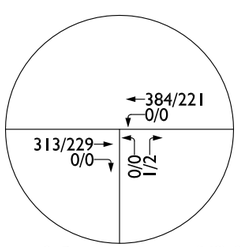
6. Topaz Avenue (NS) & Mesquite Street (EW)



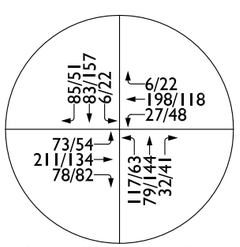
7. Turko Avenue (NS) & Mesquite Street (EW)



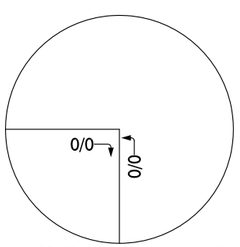
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



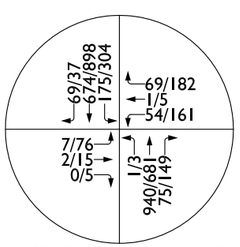
9. Primrose Avenue (NS) & Mesquite Street (EW)



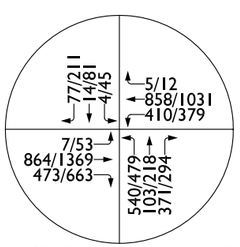
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

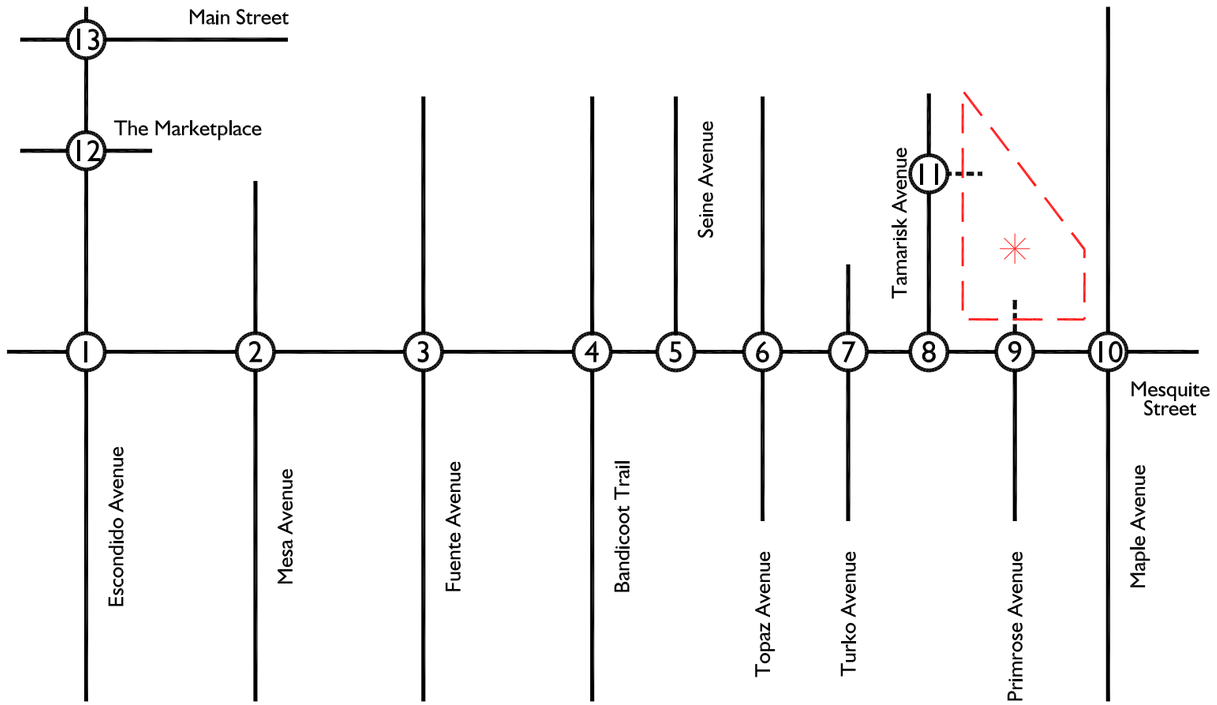
Legend:

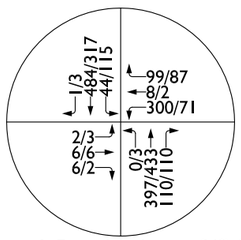
10/20 = AM/PM Peak Hour Volumes

N

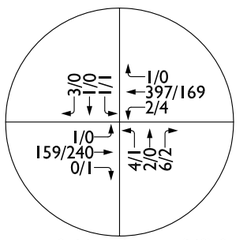
Exhibit 7-2

Project Opening Year (2023) With Cumulative Projects With Project Conditions Traffic Volumes

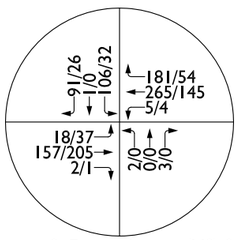




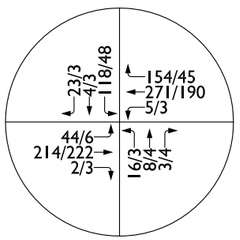
1. Escondido Avenue (NS) & Mesquite Street (EW)



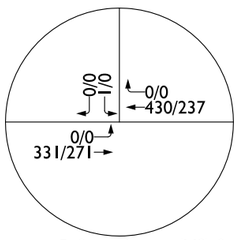
2. Mesa Avenue (NS) & Mesquite Street (EW)



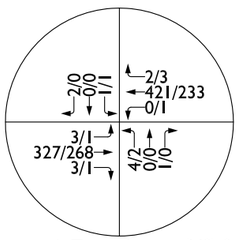
3. Fuente Avenue (NS) & Mesquite Street (EW)



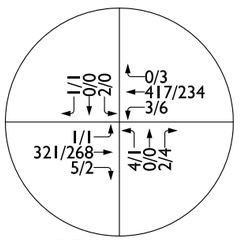
4. Bandicoot Trail (NS) & Mesquite Street (EW)



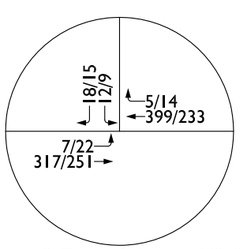
5. Seine Avenue(NS) & Mesquite Street (EW)



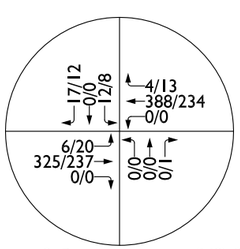
6. Topaz Avenue (NS) & Mesquite Street (EW)



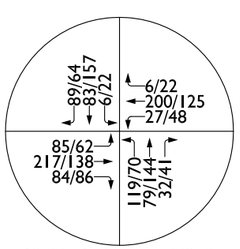
7. Turko Avenue (NS) & Mesquite Street (EW)



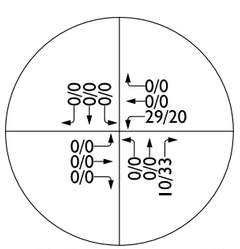
8. Tamarisk Avenue (NS) & Mesquite Street (EW)



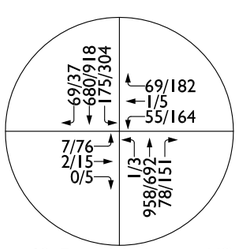
9. Primrose Avenue (NS) & Mesquite Street (EW)



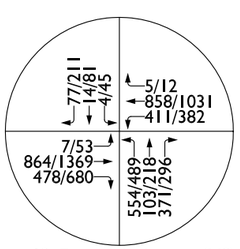
10. Maple Avenue (NS) & Mesquite Street (EW)



11. Tamarisk Avenue (NS) & Sage Street (EW)



12. Escondido Avenue (NS) & The Marketplace (EW)



13. Escondido Avenue (NS) & Main Street (EW)

Legend:

10/20 = AM/PM Peak Hour Volumes

N

Table 7-1
Study Intersection LOS Analysis Summary
Project Opening Year (2023) With Cumulative Projects Conditions

	Intersection	Traffic Control[3]	Methodology	Without Project				With Project							
				Delay (Secs)[1,2]		Level of Service		Delay (Secs)[1,2]		Increase in Delay		Level of Service		Requires Improvement?	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Escondido Avenue (NS) / Mesquite Street (EW)	AWS	HCM	**74.2**	29.0	**F**	D	**86.1**	**37.3**	**11.9**	**8.3**	**F**	**E**	**Yes**	**Yes**
	With Improvements[5]	AWS	HCM	- -	- -	- -	- -	**69.4**	22.8	-4.8	-6.2	**F**	C	- -	- -
2.	Mesa Avenue (NS) / Mesquite Street (EW)	CSS	HCM	12.4	11.3	B	B	13.0	12.0	0.6	0.7	B	B	No	No
3.	Fuente Avenue (NS) / Mesquite Street (EW)	AWS	HCM	13.1	8.5	B	A	15.0	8.9	1.9	0.4	B	A	No	No
4.	Bandicoot Trail (NS) / Mesquite Street (EW)	AWS	HCM	13.5	9.4	B	A	14.9	10.1	1.4	0.7	B	B	No	No
5.	Seine Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.9	0.0	B	A	15.6	0.0	0.7	0.0	C	A	No	No
6.	Topaz Avenue (NS) / Mesquite Street (EW)	CSS	HCM	15.3	13.4	C	B	16.2	14.5	0.9	1.1	C	B	No	No
7.	Opal Avenue - Turko Avenue (NS) / Mesquite Street (EW)	CSS	HCM	14.5	10.6	B	B	15.2	11.0	0.7	0.4	C	B	No	No
8.	Tamarisk Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.6	10.5	B	B	13.0	11.7	2.4	1.2	B	B	No	No
9.	Primrose Avenue (NS) / Mesquite Street (EW)	CSS	HCM	10.1	9.8	B	A	13.8	12.2	3.7	2.4	B	B	No	No
10.	Maple Avenue (NS) / Mesquite Street (EW)	AWS	HCM	15.1	14.1	C	B	16.2	15.1	1.1	1.0	C	C	No	No
11.	Tamarisk Avenue (NS) / Sage Street (EW)[4]	CSS	HCM	- -	- -	- -	- -	8.7	8.7	- -	- -	A	A	No	No
12.	Escondido Avenue (NS) / The Marketplace - Kaiser Permanente Way (EW)	TS	HCM	10.5	15.7	B	B	10.6	15.8	0.1	0.1	B	B	No	No
13.	Escondido Avenue (NS) / Main Street (EW)	TS	HCM	26.5	51.6	C	D	27.0	53.2	0.5	1.6	C	D	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

4 Study intersection under existing conditions serves as a bend and therefore has zero level of service delay.

5 Improvements identified achieve an acceptable LOS or a LOS that is equal to or better than the pre-project LOS and delay.

TABLE 7-2
Project Opening Year (2023) With Cumulative Projects Conditions
Recommended Improvements - Intersections[1]

Improvement #	Intersection	Recommended Improvements
IMP - 1	1. Escondido Avenue (NS) at Mesquite Street (EW)	- Widen northbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn/thru lane and one right-turn lane. - Widen southbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn lane and one thru/right-turn lane.

[1] Recommended improvements consist of the minimum necessary improvements to improve operations to achieve an acceptable LOS or a LOS that is equal to or better than the pre-project LOS and delay.

8.0 Findings & Recommendations

8.1 Project Summary

The project site is located north of Mesquite Street, east of Tamarisk Avenue, and west of Maple Avenue in the City of Hesperia. The project site is vacant under existing conditions. The two existing single-family homes located adjacent to the project site along Tamarisk Avenue will remain. Surrounding land uses in the vicinity of the project site include residential homes and a public school.

The project consists of constructing and operating 112 single family residential dwelling units.

The proposed development is forecast to generate approximately 1,056 daily trips which include approximately 78 AM peak hour trips, approximately 105 PM peak hour trips.

8.2 Intersection Analysis Summary

The intersection level of service analysis has been performed at thirteen (13) intersections within the vicinity of the site where the project may contribute a significant amount of traffic. Project deficiencies have been evaluated within the study area based on peak hour level of service criteria.

The following study area intersection has been identified to operate at an unacceptable levels of service, resulting in required intersection improvements for analysis scenarios with the addition of project traffic:

- Intersection #1 – Escondido Avenue (NS) / Mesquite Street (EW)

It should be noted that the intersection of Escondido Avenue at Mesquite Street is currently deficient under existing conditions and is forecast to continue operating deficiently under future scenarios.

Intersection improvement recommendations are discussed in Section 8.3.

4000 westerly place, ste. 280
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8.3 Off-Site Intersection Improvement Recommendations

As shown in Table 5-2, Table 6-2, Table 7-2, the following intersection improvements are recommended for the deficient study intersection of Escondido Avenue at Mesquite Street:

a) Widen northbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn/thru lane and one right-turn lane.

b) Widen southbound approach on Escondido Avenue from one left-turn/thru/right-turn lane to consist of one left-turn lane and one thru/right-turn lane.

With the implementation of the above intersection improvement recommendations, the project's impact is considered to be less than significant.

Recommended intersection improvements are depicted in Exhibit 8-1.

8.4 Fair-Share Contributions

Fair share contributions are based on project trip contributions relative to amount of overall growth from existing traffic conditions.

Fair-share contributions percentages may be found in Table 8-1.

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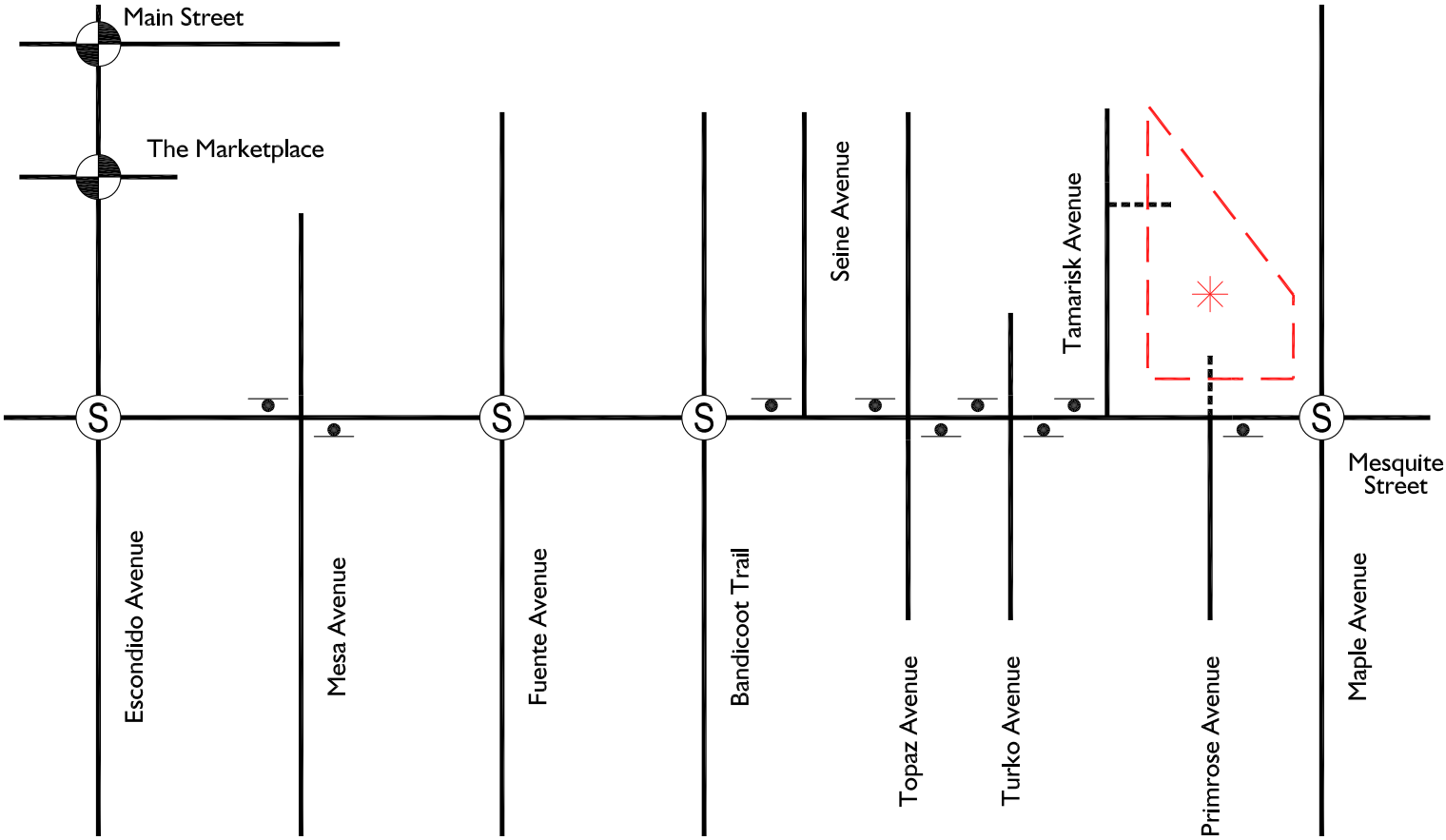
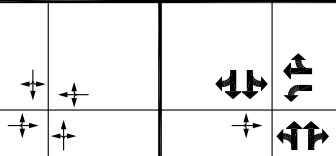
Recommendations



Intersection Improvements

	Existing Conditions	Existing Plus Project Conditons	Project Opening Year (2023) With Project Conditions	Project Opening Year (2023) With Cumulative Projects With Project Conditions
(1) Escondido Ave. (NS) at Mesquite St. (EW)			See previous phase improvements; no additional improvements required	See previous phase improvements; no additional improvements required

Legend:

- = Traffic Signal
- (S) = All Way Stop
- = Stop Sign
- = Improvement

N

Table 8-1
Project Fair-Share Contribution Summary[1]
Project Opening Year (2023) With Cumulative Projects With Project Conditions

Intersection	Existing Conditions Traffic		Project Opening Year (2023) With Cumulative Projects With Project Conditions		Growth in Traffic		Project Traffic		Project Fair-Share	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1. Escondido Avenue (NS) / Mesquite Street (EW)	1,280	943	1,459	1,152	179	209	47	64	26.26%	30.62%

[1] Project Fair-Share Contribution represents the project's traffic contribution at each impacted study area intersection as a percentage of the overall growth in traffic for Project Opening Year (2023) With Cumulative Projects Conditions. This table is for informational purposes only and is not tied to any mitigation.

Appendix A

Approved Scope of Work

TKE 156.13_378

10.18.21
TIA Scope pg 3
Recommended as
REDLINED,
Sheet 2,
EXH. A.

NWC MESQUITE STREET & MAPLE AVENUE SINGLE FAMILY RESIDENTIAL PROJECT
Traffic Impact Study
Scope of Work
Updated October 12, 2021

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 proposed NWC Mesquite Street & Maple Avenue Single Family Residential Project (hereinafter referred to as project) is located north of Mesquite Street, south of Sager Street, east of Bandicoot Trail and west of the California aqueduct in the City of Hesperia. The project consists of the construction of 112 single-family detached dwelling units.

The project site is generally vacant under existing conditions.

Access for the project site is planned to be provided via:

- One (1) proposed unsignalized intersection at Primrose Avenue (NS) / Mesquite Street (EW); and

- One (1) proposed unsignalized intersection along Tamarisk Avenue.

The project is planned to open in 2023 and will be evaluated in one single phase.

Exhibit A shows the location of the proposed project. Exhibit B shows the proposed site plan.

B. Project Trip Generation:

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual* (10th Edition, 2017). This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 1 shows the ITE trip generation rates utilized for the trip generation analysis of the proposed project land uses.

Table 2 shows the corresponding trip generation for the proposed project utilizing the trip generation rates shown in Table 1.

As shown in Table 2, the proposed project is forecast to generate approximately 1,057 weekday daily trips which includes approximately 83 weekday AM peak hour trips and 111 weekday PM peak hour trips.

C. Project Trip Distribution: Exhibit C shows the project trip distribution for the proposed project.

D. Study Area: The analysis will evaluate the following study intersections:

1. Escondido Avenue (NS) / Mesquite Avenue (EW);
2. Mesa Avenue (NS) / Mesquite Avenue (EW);
3. Fuente Avenue (NS) / Mesquite Avenue (EW);
4. Bandicoot Trail (NS) / Mesquite Avenue (EW);
5. Seine Avenue (NS) / Mesquite Avenue (EW);
6. Topaz Avenue (NS) / Mesquite Avenue (EW);
7. Turko Avenue (NS) / Mesquite Avenue (EW);
8. Tamarisk Avenue (NS) / Mesquite Avenue (EW);
9. Primrose Avenue (NS) / Mesquite Avenue (EW);
10. Maple Avenue (NS) / Mesquite Avenue (EW); and
11. Tamarisk Avenue (NS) / Proposed Street (EW).

PLS ADD KEY I/S - (12) Escondido & Marketplace / Kaiser (13) Escondido & Main

E. Analysis Scenarios: The analysis will evaluate traffic conditions for the following scenarios during the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM):

- Existing Conditions;
- Existing Plus Project Conditions;
- Project Opening Year With Ambient Growth Without Project Conditions;
- Project Opening Year With Ambient Growth With Project Conditions;
- Project Opening Year With Ambient Growth & Cumulative Projects Without Project Conditions; and
- Project Opening Year With Ambient Growth & Cumulative Projects With Project Conditions.

F. Traffic Analysis Parameters: The analysis will utilize the following parameters.

- Synchro analysis software and the Highway Capacity Manual 6th Editions (HCM 6) methodology.
- Optimized signal timing.

G. Existing Traffic Counts: The analysis will utilize new traffic counts. The counts will <u>not</u> be collected by vehicle classifications.

- AM peak period counts will be collected during one typical weekday from 7:00 AM to 9:00 AM.
- PM peak period counts will be collected during one typical weekday from 4:00 PM to 6:00 PM.

RK will check with the traffic count company to see if historical count data is available at these location for comparison purposes.

H. Opening Year (2023) With Ambient Growth & Cumulative Projects Conditions Traffic Volumes: Opening Year (2023) With Ambient Growth & Cumulative Projects Conditions traffic volumes will be derived by applying an annual growth rate of two percent (2%) per year to existing traffic volumes and addition of traffic associated with specific cumulative projects in the area provided by the City.

I. Performance Criteria: LOS D or better is considered the acceptable LOS operation for City of Hesperia.

J. Infrastructure Deficiency Criteria:

Any intersection operating at LOS E or F would need to be improved to operate at LOS D or better.

K. Vehicles Miles Traveled Analysis: Effective July 1st, 2020, the longstanding metric of roadway level of service (LOS), which is typically measured in terms of vehicle delay, roadway capacity and congestion, will no longer be considered a significant impact under the California Environmental Quality Act (CEQA). Pursuant to CEQA Guidelines, Section 15064.3, VMT is now the most appropriate measure of transportation impacts.

The City of Hesperia adheres to the guidelines set forth by the City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS), dated July 2020, to provide recommendations in the form of thresholds of significance and methodology for identifying VMT related impacts. The proposed project is subject to a VMT analysis and will adhere to the recommendations and practices described in the Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS), dated July 2020.

Based on the analysis methodology described in the Hesperia Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) guidelines regarding VMT, project screening procedures have been implemented to identify projects that may be presumed to have a less than significant impact absent substantial evidence to the contrary and will be exempted from further project-level VMT assessment.

According to the City's guidelines, land use projects located within transit priority area or low VMT generating areas are presumed to have a less than significant impact absent substantial evidence to the contrary.

After utilizing the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the proposed project is not located within transit priority area or low VMT generating area and has the following VMT characteristics:

Traffic Analysis Zone (TAZ)	53920201
Jurisdiction	Hesperia
TAZ VMT	20.7
Jurisdiction VMT	18.5
% Difference	11.82%
VMT Metric	PA VMT Per Population
Threshold	15.7

RK will prepare a detailed VMT model run for the project.

If based on the model data, VMT reduction is required, RK will attempt to mitigate the VMT through CAPCOA mitigation measures.

L. Request for Information:

- Information on cumulative projects that need to be included in the traffic analysis (location, land use type(s), and land use quantities) will be requested from the planning department.

If you have any questions, or would like further review, please call us at (949) 474-0809.

RK ENGINEERING GROUP, INC.

Alex Tabrizi, PE, TE
Principal

Attachments

Recommended: MP 10.18.21
AS REDLINED.

Approved by:
MP for Michael Thornton, CE CONSULTING

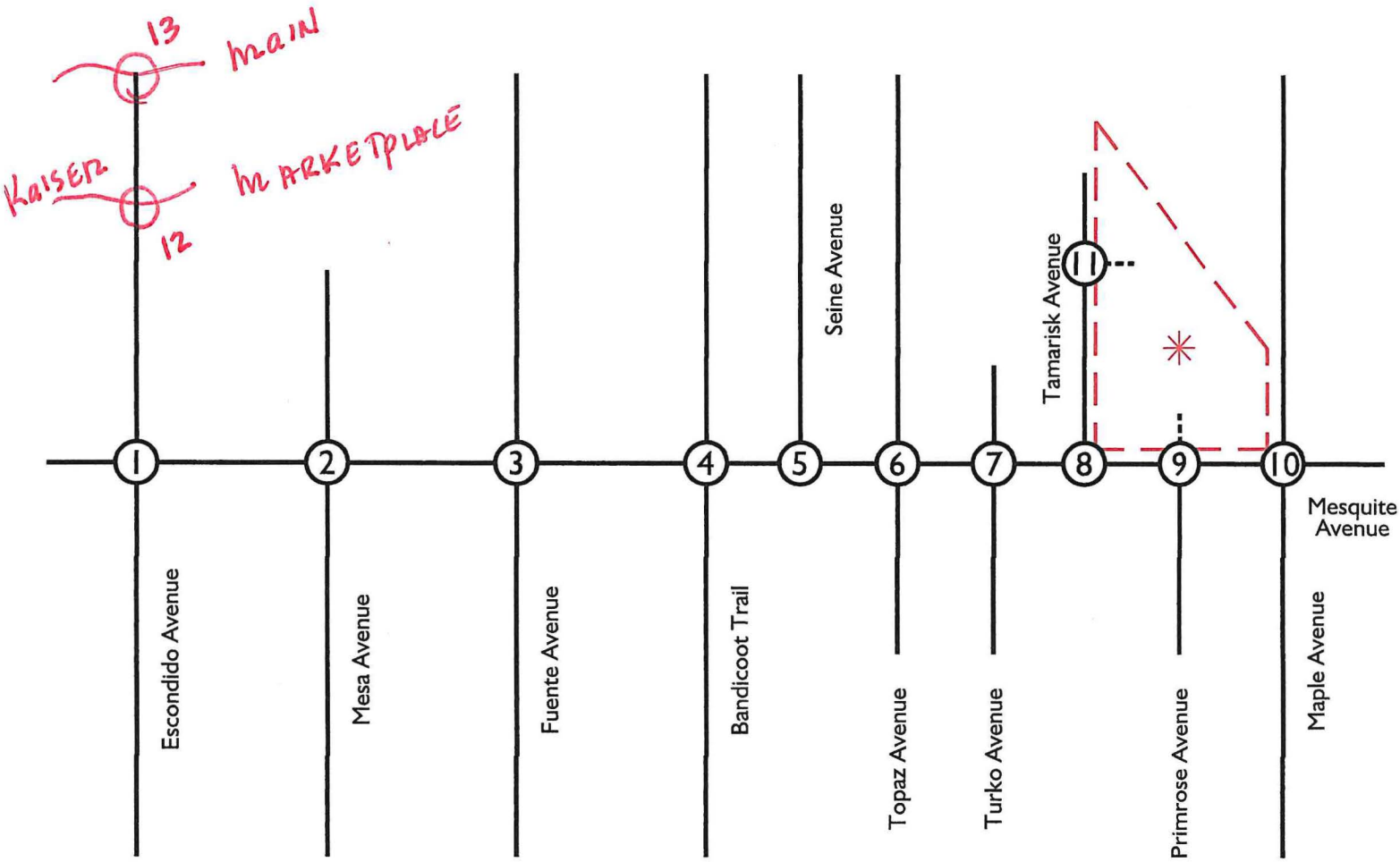
City of Hesperia

Date

Attachments

Exhibit A

Location Map



Legend:

(1) = Study Area Intersections

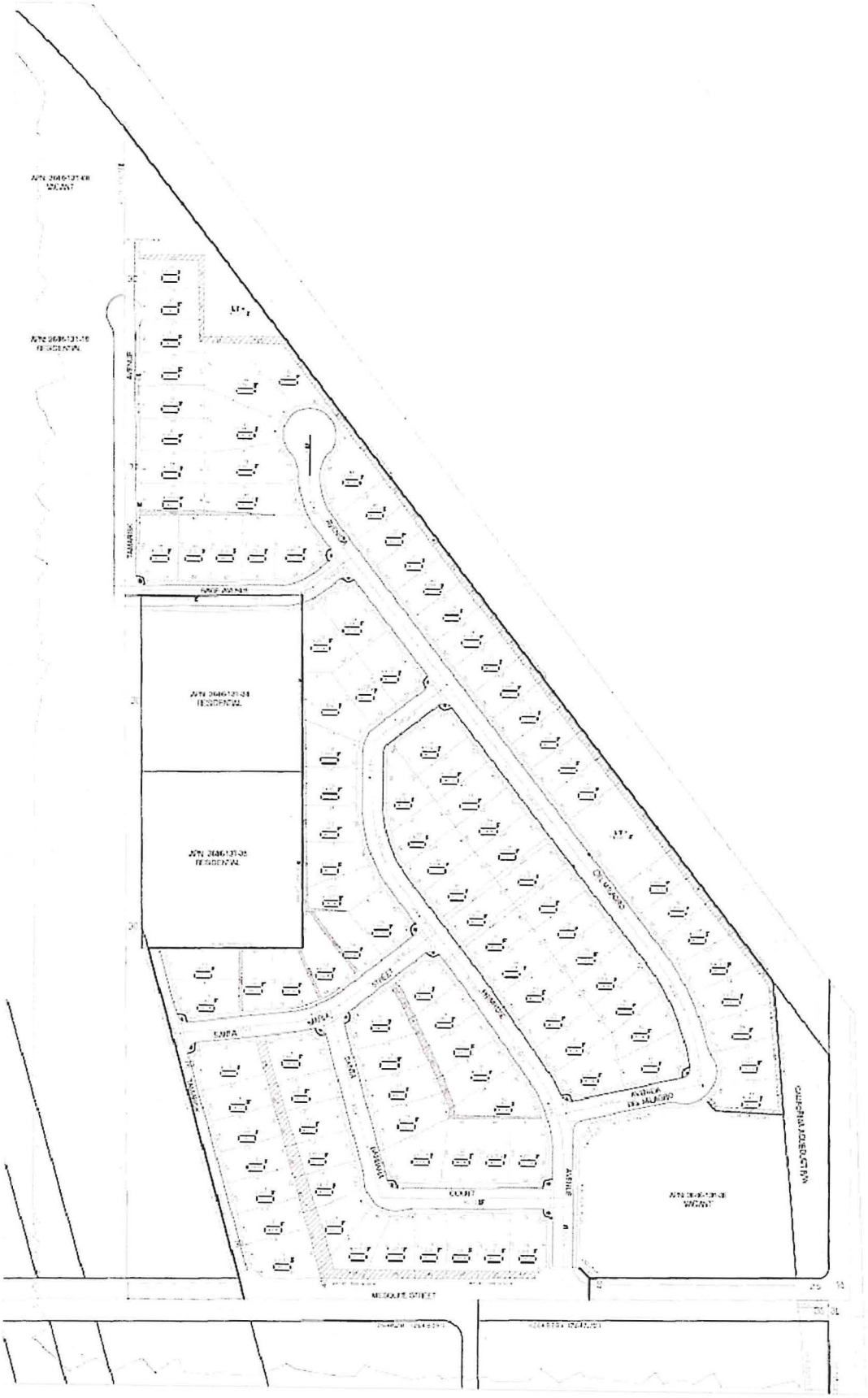
--- = Project Site Boundary

▪▪▪ = Project Access

N

Exhibit B

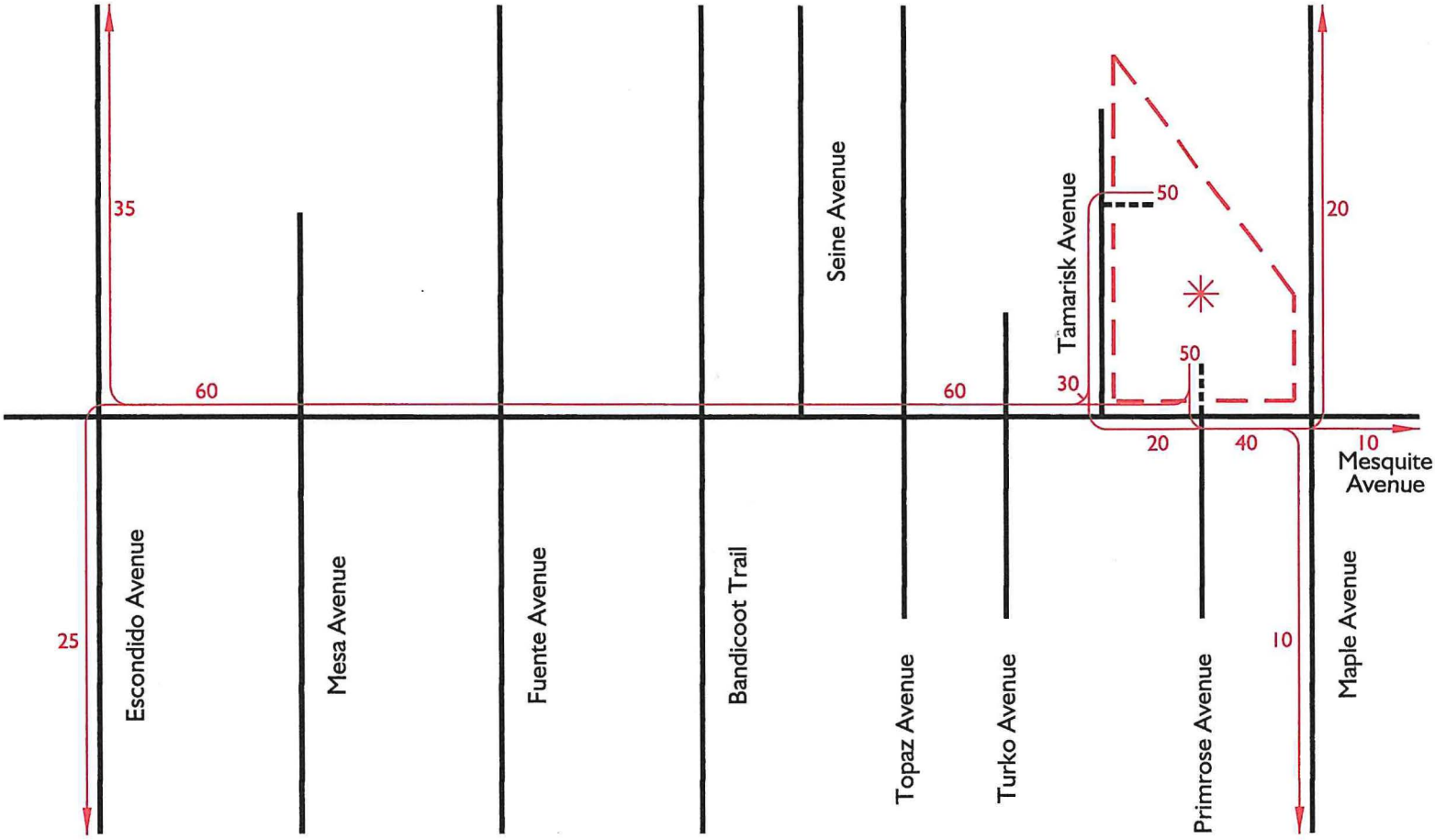
Site Plan



N

Exhibit C

Project Trip Distribution



Legend:

10 = Percent to/from Project

N

TABLE 1

ITE Trip Generation Rates[1]

Land Use	Units[2]	ITE Code	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Single Family Homes	DU	210	0.19	0.56	0.74	0.62	0.37	0.99	9.44

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

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

TABLE 2

Project Trip Generation[1]

Proposed Land Uses									
Land Use (ITE Code)	Quantity	Units[2]	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Single Family Homes	112	DU	21	62	83	70	41	111	1,057

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

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

Appendix B

Existing Traffic Count Worksheets

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Hesperia
N/S: Escondido Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 01_HES_Esco_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Escondido Avenue Southbound				Mesquite Street Westbound				Escondido Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	11	46	0	57	25	0	23	48	0	25	26	51	1	0	0	1	157
07:15 AM	20	56	0	76	39	1	28	68	0	47	36	83	0	2	0	2	229
07:30 AM	4	63	1	68	58	3	37	98	0	61	20	81	2	0	1	3	250
07:45 AM	13	96	0	109	51	2	19	72	0	64	14	78	0	1	0	1	260
Total	48	261	1	310	173	6	107	286	0	197	96	293	3	3	1	7	896
08:00 AM	5	111	1	117	60	2	8	70	0	82	22	104	0	3	1	4	295
08:15 AM	7	131	0	138	76	3	4	83	0	101	35	136	2	0	1	3	360
08:30 AM	3	116	0	119	87	1	22	110	0	100	30	130	0	2	4	6	365
08:45 AM	9	38	0	47	14	1	12	27	0	123	29	152	0	0	1	1	227
Total	24	396	1	421	237	7	46	290	0	406	116	522	2	5	7	14	1247
Grand Total	72	657	2	731	410	13	153	576	0	603	212	815	5	8	8	21	2143
Apprch %	9.8	89.9	0.3		71.2	2.3	26.6		0	74	26		23.8	38.1	38.1		
Total %	3.4	30.7	0.1	34.1	19.1	0.6	7.1	26.9	0	28.1	9.9	38	0.2	0.4	0.4	1	

	Escondido Avenue Southbound				Mesquite Street Westbound				Escondido Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**13**	96	0	109	51	2	19	72	0	64	14	78	0	1	0	1	260
08:00 AM	5	111	**1**	117	60	2	8	70	0	82	22	104	0	**3**	1	4	295
08:15 AM	7	**131**	0	**138**	76	**3**	4	83	0	**101**	**35**	**136**	**2**	0	1	3	360
08:30 AM	3	116	0	119	**87**	1	**22**	**110**	0	100	30	130	0	2	**4**	**6**	**365**
Total Volume	28	454	1	483	274	8	53	335	0	347	101	448	2	6	6	14	1280
% App. Total	5.8	94	0.2		81.8	2.4	15.8		0	77.5	22.5		14.3	42.9	42.9		
PHF	.538	.866	.250	.875	.787	.667	.602	.761	.000	.859	.721	.824	.250	.500	.375	.583	.877

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City of Hesperia
N/S: Escondido Avenue
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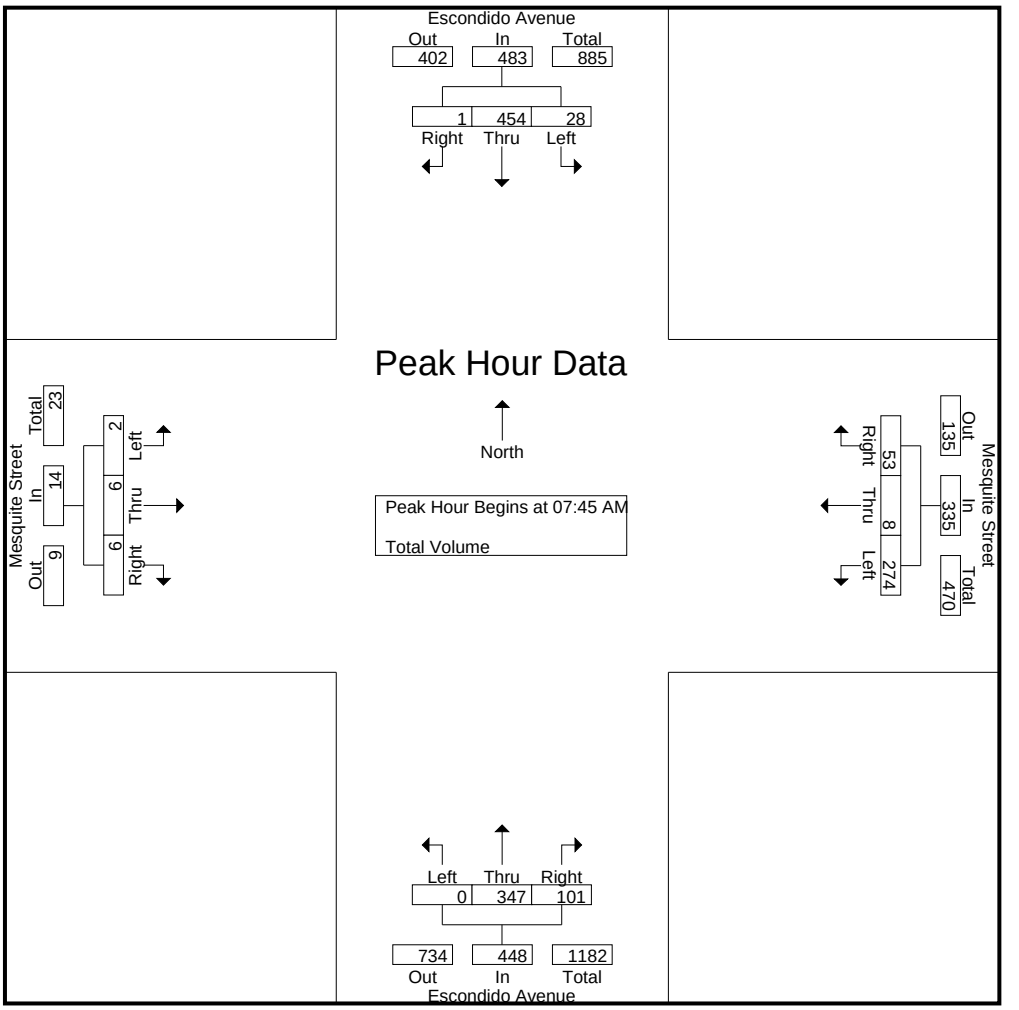
File Name : 01_HES_Esco_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				08:00 AM				07:45 AM			
+0 mins.	**13**	96	0	109	51	2	19	72	0	82	22	104	0	1	0	1
+15 mins.	5	111	**1**	117	60	2	8	70	0	101	**35**	136	0	**3**	1	4
+30 mins.	7	**131**	0	**138**	76	**3**	4	83	0	100	30	130	**2**	0	1	3
+45 mins.	3	116	0	119	**87**	1	**22**	**110**	0	**123**	29	**152**	0	2	**4**	**6**
Total Volume	28	454	1	483	274	8	53	335	0	406	116	522	2	6	6	14
% App. Total	5.8	94	0.2		81.8	2.4	15.8		0	77.8	22.2		14.3	42.9	42.9	
PHF	.538	.866	.250	.875	.787	.667	.602	.761	.000	.825	.829	.859	.250	.500	.375	.583

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PO Box 1178
Corona, CA 92878
(951)268-6268

City of Hesperia
N/S: Escondido Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 01_HES_Esco_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Escondido Avenue Southbound				Mesquite Street Westbound				Escondido Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	16	72	1	89	22	1	14	37	2	122	28	152	1	3	1	5	283
04:15 PM	10	59	1	70	12	1	15	28	1	109	22	132	2	1	0	3	233
04:30 PM	18	75	0	93	15	0	14	29	0	79	24	103	0	2	0	2	227
04:45 PM	18	60	1	79	10	0	12	22	0	83	15	98	0	0	1	1	200
Total	62	266	3	331	59	2	55	116	3	393	89	485	3	6	2	11	943
05:00 PM	16	80	1	97	18	0	16	34	1	66	22	89	1	0	1	2	222
05:15 PM	15	67	0	82	17	1	8	26	1	90	35	126	0	1	0	1	235
05:30 PM	16	65	1	82	16	0	17	33	0	87	26	113	1	1	2	4	232
05:45 PM	24	65	0	89	14	2	17	33	1	85	19	105	2	0	0	2	229
Total	71	277	2	350	65	3	58	126	3	328	102	433	4	2	3	9	918
Grand Total	133	543	5	681	124	5	113	242	6	721	191	918	7	8	5	20	1861
Apprch %	19.5	79.7	0.7		51.2	2.1	46.7		0.7	78.5	20.8		35	40	25		
Total %	7.1	29.2	0.3	36.6	6.7	0.3	6.1	13	0.3	38.7	10.3	49.3	0.4	0.4	0.3	1.1	

	Escondido Avenue Southbound				Mesquite Street Westbound				Escondido Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	16	72	**1**	89	**22**	**1**	14	**37**	**2**	**122**	**28**	**152**	1	**3**	**1**	**5**	**283**
04:15 PM	10	59	1	70	12	1	**15**	28	1	109	22	132	**2**	1	0	3	233
04:30 PM	**18**	**75**	0	**93**	15	0	14	29	0	79	24	103	0	2	0	2	227
04:45 PM	18	60	1	79	10	0	12	22	0	83	15	98	0	0	1	1	200
Total Volume	62	266	3	331	59	2	55	116	3	393	89	485	3	6	2	11	943
% App. Total	18.7	80.4	0.9		50.9	1.7	47.4		0.6	81	18.4		27.3	54.5	18.2		
PHF	.861	.887	.750	.890	.670	.500	.917	.784	.375	.805	.795	.798	.375	.500	.500	.550	.833

Counts Unlimited, Inc.
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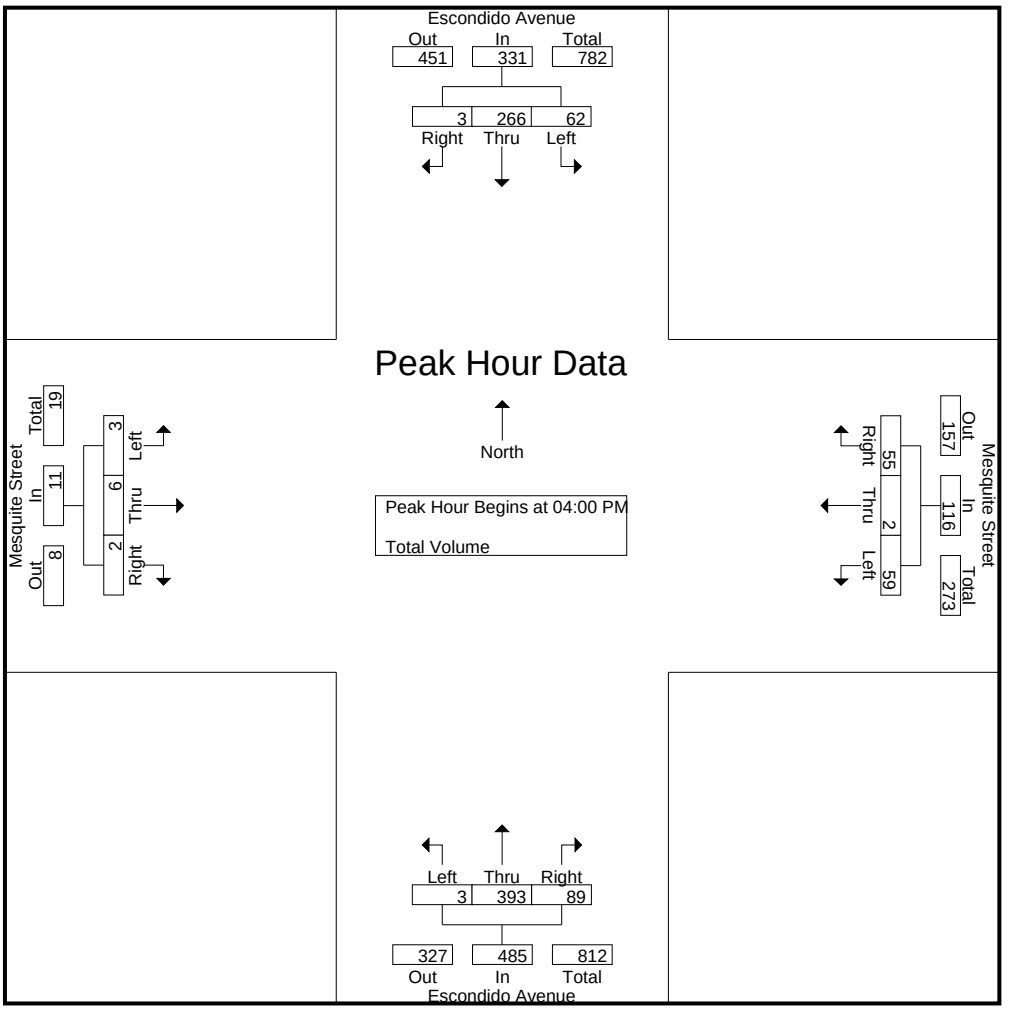
City of Hesperia
N/S: Escondido Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 01_HES_Esco_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	**18**	75	0	93	**18**	0	16	**34**	**2**	**122**	**28**	**152**	1	**3**	**1**	**5**
+15 mins.	18	60	**1**	79	17	1	8	26	1	109	22	132	**2**	1	0	3
+30 mins.	16	**80**	1	**97**	16	0	**17**	33	0	79	24	103	0	2	0	2
+45 mins.	15	67	0	82	14	**2**	17	33	0	83	15	98	0	0	1	1
Total Volume	67	282	2	351	65	3	58	126	3	393	89	485	3	6	2	11
% App. Total	19.1	80.3	0.6		51.6	2.4	46		0.6	81	18.4		27.3	54.5	18.2	
PHF	.931	.881	.500	.905	.903	.375	.853	.926	.375	.805	.795	.798	.375	.500	.500	.550

Counts Unlimited, Inc.
PO Box 1178
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City of Hesperia
N/S: Mesa Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 02_HES_Mesa_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Mesa Avenue Southbound				Mesquite Street Westbound				Mesa Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	49	0	49	0	0	0	0	0	35	0	35	84
07:15 AM	3	0	0	3	1	68	0	69	1	0	1	2	0	56	0	56	130
07:30 AM	1	0	0	1	0	99	1	100	0	0	1	1	0	25	0	25	127
07:45 AM	0	0	1	1	0	71	0	71	0	1	0	1	0	29	0	29	102
Total	4	0	1	5	1	287	1	289	1	1	2	4	0	145	0	145	443
08:00 AM	0	0	0	0	0	71	0	71	0	0	0	0	0	30	0	30	101
08:15 AM	0	1	1	2	0	80	0	80	2	0	1	3	0	42	0	42	127
08:30 AM	1	0	1	2	2	103	1	106	2	1	5	8	1	33	0	34	150
08:45 AM	0	0	0	0	0	27	0	27	0	0	0	0	0	40	0	40	67
Total	1	1	2	4	2	281	1	284	4	1	6	11	1	145	0	146	445
Grand Total	5	1	3	9	3	568	2	573	5	2	8	15	1	290	0	291	888
Apprch %	55.6	11.1	33.3		0.5	99.1	0.3		33.3	13.3	53.3		0.3	99.7	0		
Total %	0.6	0.1	0.3	1	0.3	64	0.2	64.5	0.6	0.2	0.9	1.7	0.1	32.7	0	32.8	

	Mesa Avenue Southbound				Mesquite Street Westbound				Mesa Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**1**	1	0	71	0	71	0	**1**	0	1	0	29	0	29	102
08:00 AM	0	0	0	0	0	71	0	71	0	0	0	0	0	30	0	30	101
08:15 AM	0	**1**	1	**2**	0	80	0	80	**2**	0	1	3	0	**42**	0	**42**	127
08:30 AM	**1**	0	1	2	**2**	**103**	**1**	**106**	2	1	**5**	**8**	**1**	33	0	34	**150**
Total Volume	1	1	3	5	2	325	1	328	4	2	6	12	1	134	0	135	480
% App. Total	20	20	60		0.6	99.1	0.3		33.3	16.7	50		0.7	99.3	0		
PHF	.250	.250	.750	.625	.250	.789	.250	.774	.500	.500	.300	.375	.250	.798	.000	.804	.800

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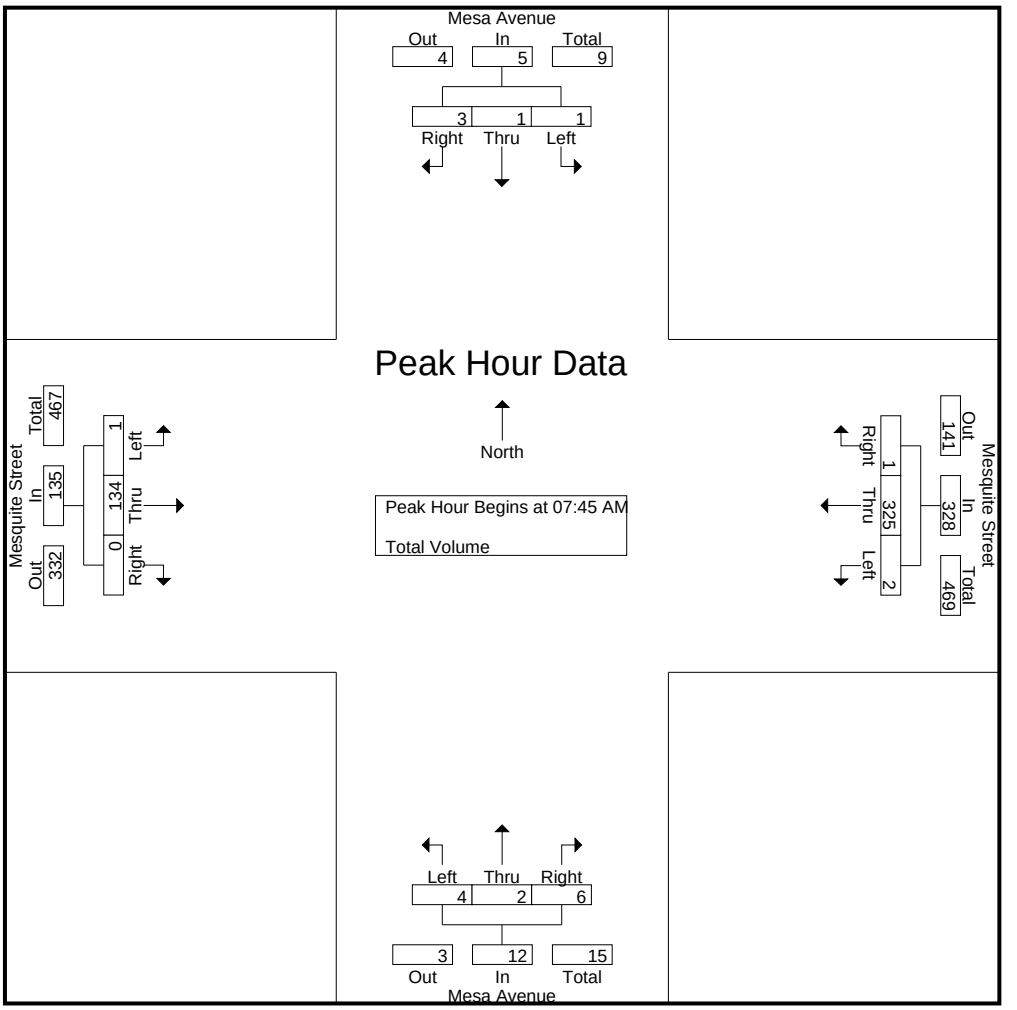
City of Hesperia
N/S: Mesa Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 02_HES_Mesa_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	0	0	0	0	0	71	0	71	0	**1**	0	1	0	30	0	30
+15 mins.	**3**	0	0	**3**	0	71	0	71	0	0	0	0	0	**42**	0	**42**
+30 mins.	1	0	0	1	0	80	0	80	**2**	0	1	3	**1**	33	0	34
+45 mins.	0	0	**1**	1	**2**	**103**	**1**	**106**	2	1	**5**	**8**	0	40	0	40
Total Volume	4	0	1	5	2	325	1	328	4	2	6	12	1	145	0	146
% App. Total	80	0	20		0.6	99.1	0.3		33.3	16.7	50		0.7	99.3	0	
PHF	.333	.000	.250	.417	.250	.789	.250	.774	.500	.500	.300	.375	.250	.863	.000	.869

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City of Hesperia
N/S: Mesa Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 02_HES_Mesa_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Mesa Avenue Southbound				Mesquite Street Westbound				Mesa Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	38	1	39	0	0	3	3	0	44	1	45	87
04:15 PM	0	0	0	0	0	30	0	30	0	0	0	0	0	35	0	35	65
04:30 PM	1	0	0	1	0	26	1	27	1	0	0	1	0	43	0	43	72
04:45 PM	0	0	0	0	0	22	0	22	0	0	0	0	1	33	0	34	56
Total	1	0	0	1	0	116	2	118	1	0	3	4	1	155	1	157	280
05:00 PM	1	0	0	1	0	33	0	33	1	0	1	2	0	35	0	35	71
05:15 PM	0	0	0	0	3	29	0	32	0	0	1	1	0	49	0	49	82
05:30 PM	0	0	0	0	1	33	0	34	0	0	0	0	0	43	1	44	78
05:45 PM	0	0	0	0	0	30	0	30	0	0	0	0	0	40	0	40	70
Total	1	0	0	1	4	125	0	129	1	0	2	3	0	167	1	168	301
Grand Total	2	0	0	2	4	241	2	247	2	0	5	7	1	322	2	325	581
Apprch %	100	0	0		1.6	97.6	0.8		28.6	0	71.4		0.3	99.1	0.6		
Total %	0.3	0	0	0.3	0.7	41.5	0.3	42.5	0.3	0	0.9	1.2	0.2	55.4	0.3	55.9	

	Mesa Avenue Southbound				Mesquite Street Westbound				Mesa Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**1**	0	0	**1**	0	**33**	0	33	**1**	0	**1**	**2**	0	35	0	35	71
05:15 PM	0	0	0	0	**3**	29	0	32	0	0	1	1	0	**49**	0	**49**	**82**
05:30 PM	0	0	0	0	1	33	0	**34**	0	0	0	0	0	43	**1**	44	78
05:45 PM	0	0	0	0	0	30	0	30	0	0	0	0	0	40	0	40	70
Total Volume	1	0	0	1	4	125	0	129	1	0	2	3	0	167	1	168	301
% App. Total	100	0	0		3.1	96.9	0		33.3	0	66.7		0	99.4	0.6		
PHF	.250	.000	.000	.250	.333	.947	.000	.949	.250	.000	.500	.375	.000	.852	.250	.857	.918

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City of Hesperia
N/S: Mesa Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 02_HES_Mesa_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
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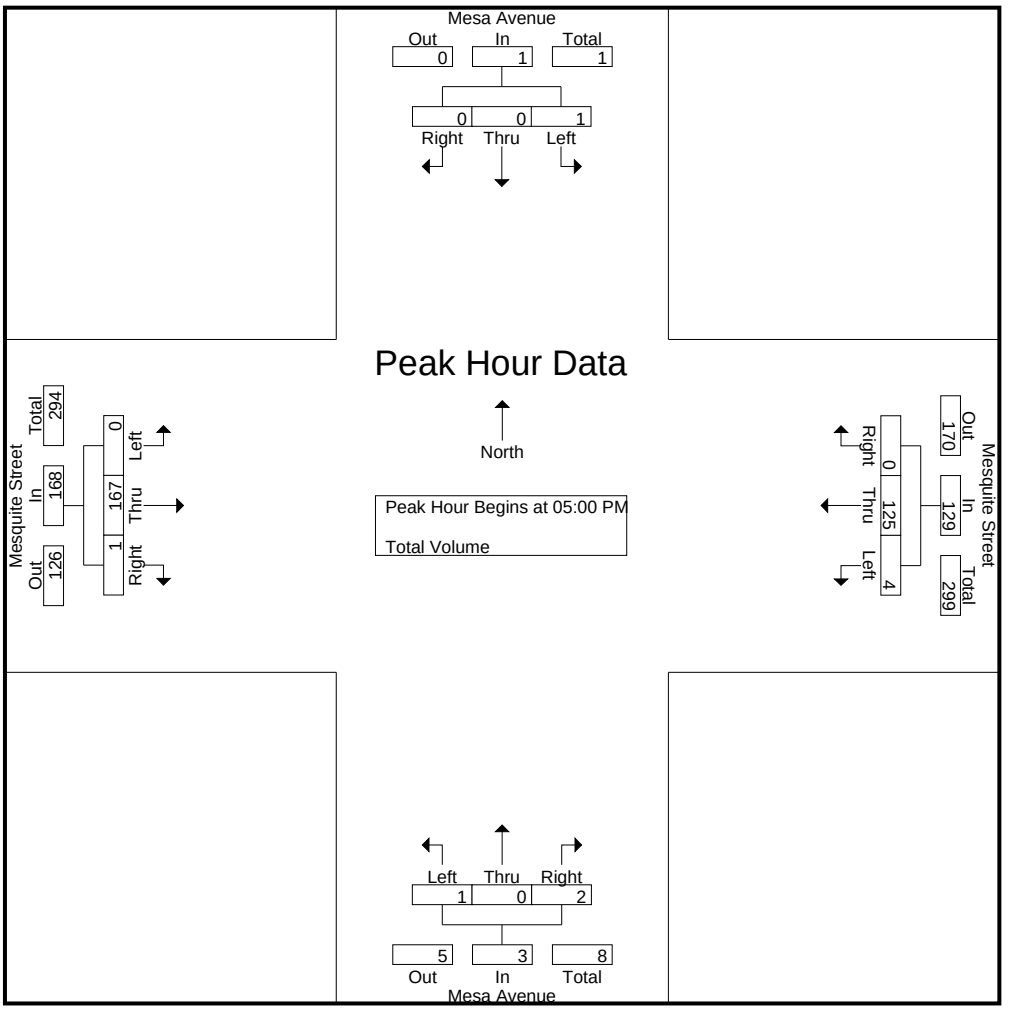

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				04:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	**33**	0	33	0	0	**3**	**3**	0	35	0	35
+15 mins.	**1**	0	0	**1**	**3**	29	0	32	0	0	0	0	0	**49**	0	**49**
+30 mins.	0	0	0	0	1	33	0	**34**	**1**	0	0	1	0	43	**1**	44
+45 mins.	1	0	0	1	0	30	0	30	0	0	0	0	0	40	0	40
Total Volume	2	0	0	2	4	125	0	129	1	0	3	4	0	167	1	168
% App. Total	100	0	0		3.1	96.9	0		25	0	75		0	99.4	0.6	
PHF	.500	.000	.000	.500	.333	.947	.000	.949	.250	.000	.250	.333	.000	.852	.250	.857

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City of Hesperia
N/S: Fuente Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 03_HES_Fuente_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Fuente Avenue Southbound				Mesquite Street Westbound				Fuente Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	13	0	6	19	1	42	34	77	0	0	0	0	1	30	0	31	127
07:15 AM	27	0	7	34	3	64	49	116	0	0	2	2	4	59	1	64	216
07:30 AM	28	1	27	56	1	70	59	130	1	0	1	2	6	21	1	28	216
07:45 AM	34	0	47	81	0	22	32	54	1	0	0	1	6	22	0	28	164
Total	102	1	87	190	5	198	174	377	2	0	3	5	17	132	2	151	723
08:00 AM	10	0	26	36	0	39	6	45	1	0	0	1	5	22	0	27	109
08:15 AM	7	0	35	42	0	43	5	48	0	0	1	1	17	27	0	44	135
08:30 AM	5	0	30	35	0	77	6	83	0	0	0	0	9	27	1	37	155
08:45 AM	4	0	3	7	2	24	7	33	1	1	1	3	9	30	1	40	83
Total	26	0	94	120	2	183	24	209	2	1	2	5	40	106	2	148	482
Grand Total	128	1	181	310	7	381	198	586	4	1	5	10	57	238	4	299	1205
Apprch %	41.3	0.3	58.4		1.2	65	33.8		40	10	50		19.1	79.6	1.3		
Total %	10.6	0.1	15	25.7	0.6	31.6	16.4	48.6	0.3	0.1	0.4	0.8	4.7	19.8	0.3	24.8	

	Fuente Avenue Southbound				Mesquite Street Westbound				Fuente Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	13	0	6	19	1	42	34	77	0	0	0	0	1	30	0	31	127
07:15 AM	27	0	7	34	**3**	64	49	116	0	0	**2**	**2**	4	**59**	**1**	**64**	**216**
07:30 AM	28	**1**	27	56	1	**70**	**59**	**130**	**1**	0	1	2	**6**	21	1	28	216
07:45 AM	**34**	0	**47**	**81**	0	22	32	54	1	0	0	1	6	22	0	28	164
Total Volume	102	1	87	190	5	198	174	377	2	0	3	5	17	132	2	151	723
% App. Total	53.7	0.5	45.8		1.3	52.5	46.2		40	0	60		11.3	87.4	1.3		
PHF	.750	.250	.463	.586	.417	.707	.737	.725	.500	.000	.375	.625	.708	.559	.500	.590	.837

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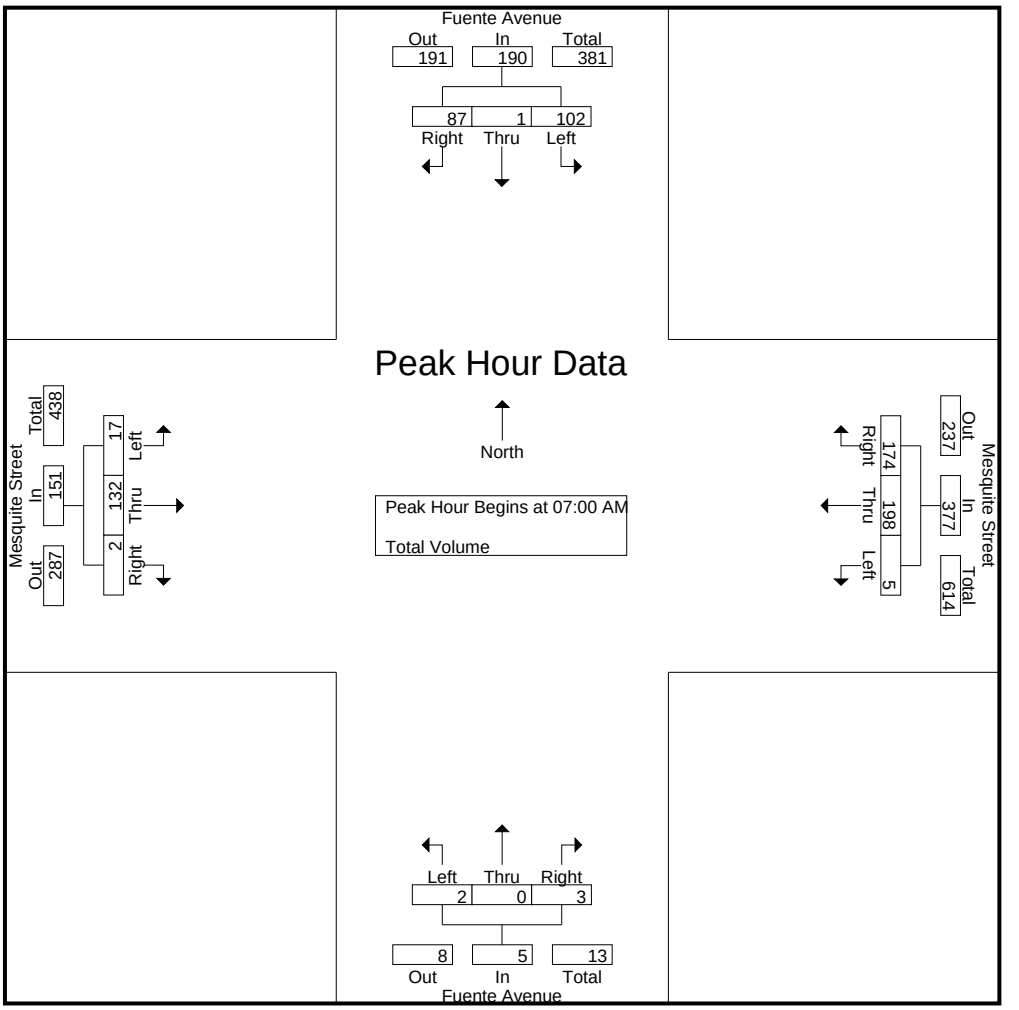
City of Hesperia
N/S: Fuente Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 03_HES_Fuente_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	28	**1**	27	56	1	42	34	77	0	0	**2**	**2**	1	30	0	31
+15 mins.	**34**	0	**47**	**81**	**3**	64	49	116	**1**	0	1	2	4	**59**	**1**	**64**
+30 mins.	10	0	26	36	1	**70**	**59**	**130**	1	0	0	1	**6**	21	1	28
+45 mins.	7	0	35	42	0	22	32	54	1	0	0	1	6	22	0	28
Total Volume	79	1	135	215	5	198	174	377	3	0	3	6	17	132	2	151
% App. Total	36.7	0.5	62.8		1.3	52.5	46.2		50	0	50		11.3	87.4	1.3	
PHF	.581	.250	.718	.664	.417	.707	.737	.725	.750	.000	.375	.750	.708	.559	.500	.590

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City of Hesperia
N/S: Fuente Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 03_HES_Fuente_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Fuente Avenue Southbound				Mesquite Street Westbound				Fuente Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	15	0	9	24	0	31	21	52	0	3	2	5	10	33	0	43	124
04:15 PM	2	0	4	6	0	24	17	41	0	0	0	0	7	30	0	37	84
04:30 PM	8	0	4	12	0	23	7	30	0	0	0	0	10	33	0	43	85
04:45 PM	9	0	3	12	1	20	11	32	0	0	0	0	6	26	0	32	76
Total	34	0	20	54	1	98	56	155	0	3	2	5	33	122	0	155	369
05:00 PM	14	0	2	16	2	31	18	51	0	0	0	0	4	30	0	34	101
05:15 PM	9	0	8	17	0	20	12	32	0	0	0	0	13	36	0	49	98
05:30 PM	3	0	11	14	1	25	9	35	0	0	1	1	12	34	1	47	97
05:45 PM	5	0	4	9	1	26	13	40	0	0	0	0	7	34	0	41	90
Total	31	0	25	56	4	102	52	158	0	0	1	1	36	134	1	171	386
Grand Total	65	0	45	110	5	200	108	313	0	3	3	6	69	256	1	326	755
Apprch %	59.1	0	40.9		1.6	63.9	34.5		0	50	50		21.2	78.5	0.3		
Total %	8.6	0	6	14.6	0.7	26.5	14.3	41.5	0	0.4	0.4	0.8	9.1	33.9	0.1	43.2	

	Fuente Avenue Southbound				Mesquite Street Westbound				Fuente Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**14**	0	2	16	**2**	**31**	**18**	**51**	0	0	0	0	4	30	0	34	**101**
05:15 PM	9	0	8	**17**	0	20	12	32	0	0	0	0	**13**	**36**	0	**49**	98
05:30 PM	3	0	**11**	14	1	25	9	35	0	0	**1**	**1**	12	34	**1**	47	97
05:45 PM	5	0	4	9	1	26	13	40	0	0	0	0	7	34	0	41	90
Total Volume	31	0	25	56	4	102	52	158	0	0	1	1	36	134	1	171	386
% App. Total	55.4	0	44.6		2.5	64.6	32.9		0	0	100		21.1	78.4	0.6		
PHF	.554	.000	.568	.824	.500	.823	.722	.775	.000	.000	.250	.250	.692	.931	.250	.872	.955

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City of Hesperia
N/S: Fuente Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 03_HES_Fuente_Mes PM
Site Code : 10521628
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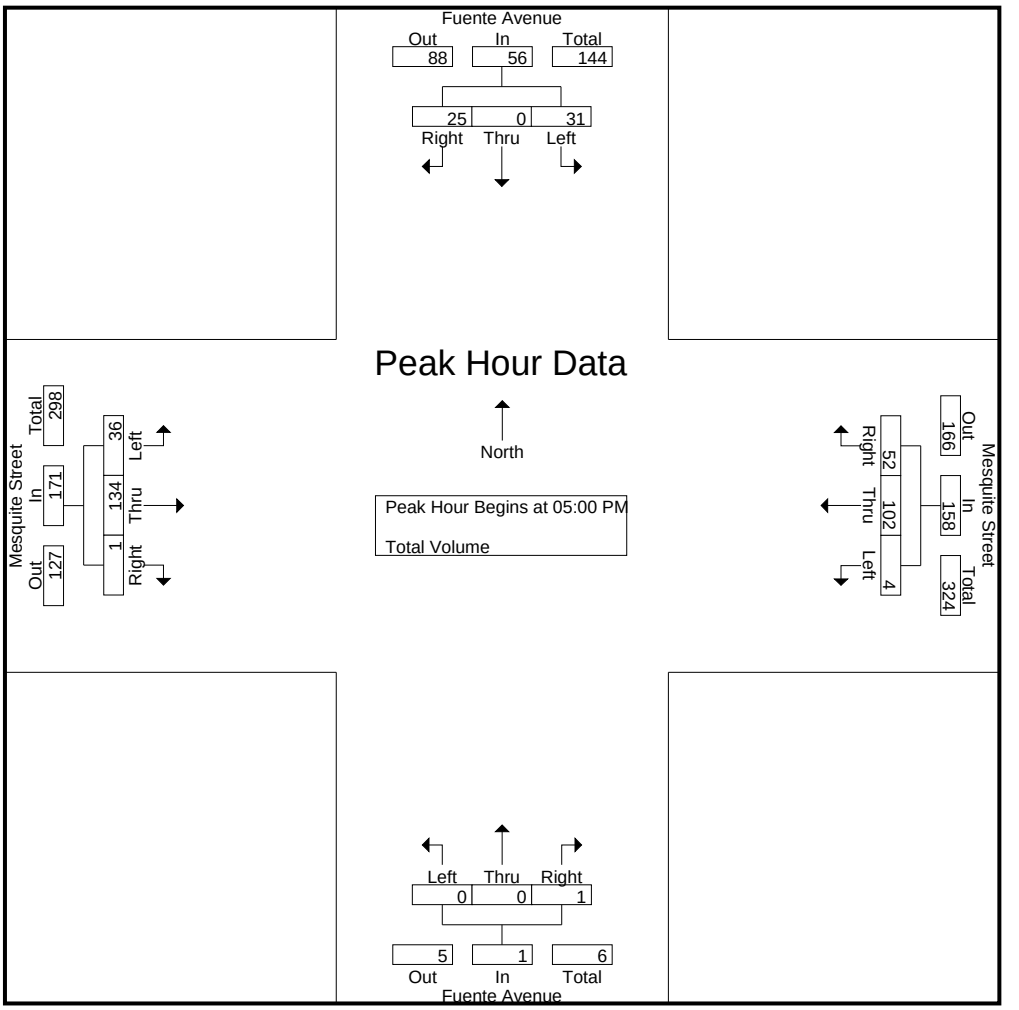

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:00 PM				05:00 PM			
+0 mins.	9	0	3	12	**2**	**31**	**18**	**51**	0	**3**	**2**	**5**	4	30	0	34
+15 mins.	**14**	0	2	16	0	20	12	32	0	0	0	0	**13**	**36**	0	**49**
+30 mins.	9	0	8	**17**	1	25	9	35	0	0	0	0	12	34	**1**	47
+45 mins.	3	0	**11**	14	1	26	13	40	0	0	0	0	7	34	0	41
Total Volume	35	0	24	59	4	102	52	158	0	3	2	5	36	134	1	171
% App. Total	59.3	0	40.7		2.5	64.6	32.9		0	60	40		21.1	78.4	0.6	
PHF	.625	.000	.545	.868	.500	.823	.722	.775	.000	.250	.250	.250	.692	.931	.250	.872

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City of Hesperia
N/S: Bandicoot Trail
E/W: Mesquite Street
Weather: Clear

File Name : 04_HES_Bandi_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Bandicoot Trail Southbound				Mesquite Street Westbound				Bandicoot Trail Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	21	0	8	29	1	52	52	105	3	6	1	10	13	30	0	43	187
07:15 AM	34	4	11	49	4	54	40	98	10	2	1	13	22	42	1	65	225
07:30 AM	27	0	2	29	0	50	39	89	2	0	1	3	5	59	1	65	186
07:45 AM	31	0	1	32	0	48	17	65	0	0	0	0	2	55	0	57	154
Total	113	4	22	139	5	204	148	357	15	8	3	26	42	186	2	230	752
08:00 AM	13	0	1	14	0	38	5	43	1	0	0	1	0	27	0	27	85
08:15 AM	4	0	0	4	0	49	4	53	1	1	0	2	2	33	0	35	94
08:30 AM	11	0	0	11	0	77	2	79	2	0	2	4	0	36	0	36	130
08:45 AM	2	0	0	2	0	27	7	34	1	3	2	6	1	37	0	38	80
Total	30	0	1	31	0	191	18	209	5	4	4	13	3	133	0	136	389
Grand Total	143	4	23	170	5	395	166	566	20	12	7	39	45	319	2	366	1141
Apprch %	84.1	2.4	13.5		0.9	69.8	29.3		51.3	30.8	17.9		12.3	87.2	0.5		
Total %	12.5	0.4	2	14.9	0.4	34.6	14.5	49.6	1.8	1.1	0.6	3.4	3.9	28	0.2	32.1	

	Bandicoot Trail Southbound				Mesquite Street Westbound				Bandicoot Trail Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	21	0	8	29	1	52	**52**	**105**	3	**6**	**1**	10	13	30	0	43	187
07:15 AM	**34**	**4**	**11**	**49**	**4**	**54**	40	98	**10**	2	1	**13**	**22**	42	**1**	**65**	**225**
07:30 AM	27	0	2	29	0	50	39	89	2	0	1	3	5	**59**	1	65	186
07:45 AM	31	0	1	32	0	48	17	65	0	0	0	0	2	55	0	57	154
Total Volume	113	4	22	139	5	204	148	357	15	8	3	26	42	186	2	230	752
% App. Total	81.3	2.9	15.8		1.4	57.1	41.5		57.7	30.8	11.5		18.3	80.9	0.9		
PHF	.831	.250	.500	.709	.313	.944	.712	.850	.375	.333	.750	.500	.477	.788	.500	.885	.836

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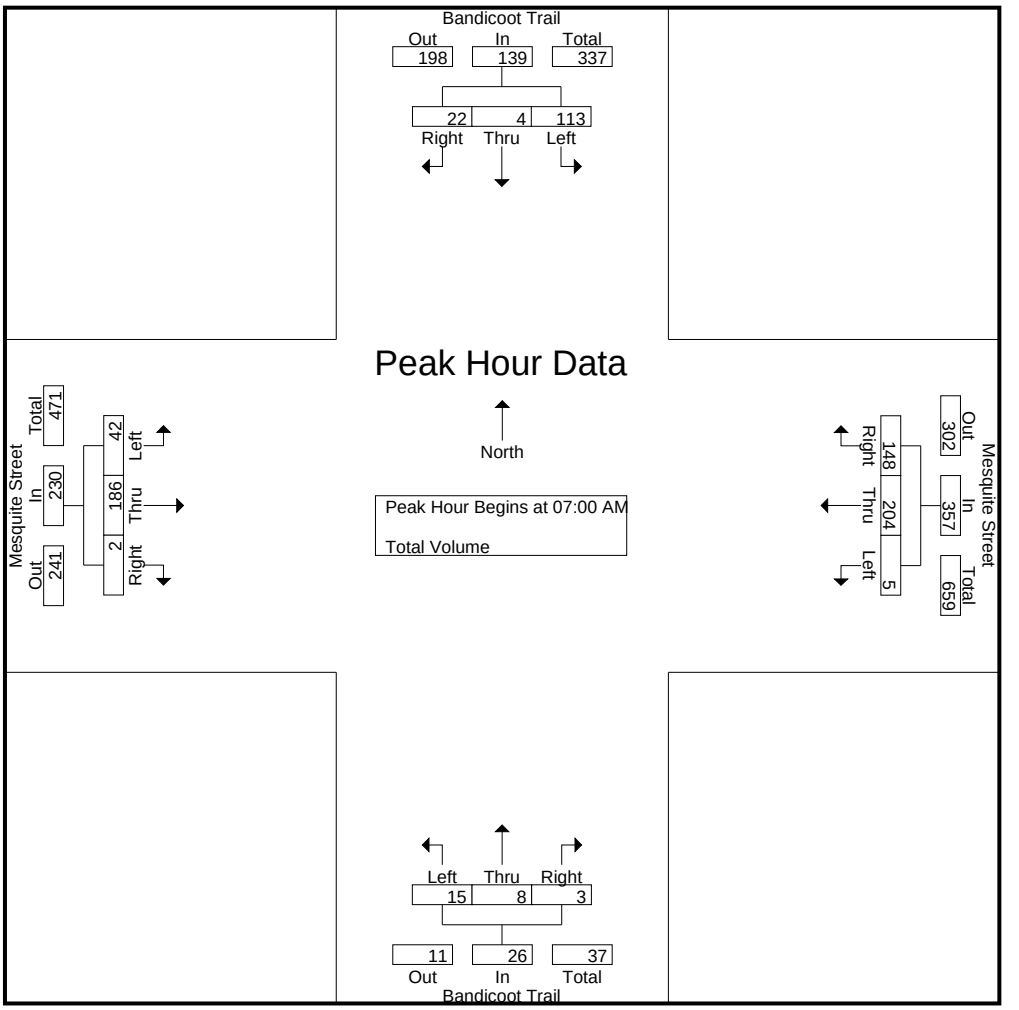
City of Hesperia
N/S: Bandicoot Trail
E/W: Mesquite Street
Weather: Clear

File Name : 04_HES_Bandi_Mes AM
Site Code : 10521628
Start Date : 11/2/2021



Peak Hour Analysis From 07:00 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.	21	0	8	29	1	52	**52**	**105**	3	**6**	**1**	10	13	30	0	43
+15 mins.	**34**	**4**	**11**	**49**	**4**	**54**	40	98	**10**	2	1	**13**	**22**	42	**1**	**65**
+30 mins.	27	0	2	29	0	50	39	89	2	0	1	3	5	**59**	1	65
+45 mins.	31	0	1	32	0	48	17	65	0	0	0	0	2	55	0	57
Total Volume	113	4	22	139	5	204	148	357	15	8	3	26	42	186	2	230
% App. Total	81.3	2.9	15.8		1.4	57.1	41.5		57.7	30.8	11.5		18.3	80.9	0.9	
PHF	.831	.250	.500	.709	.313	.944	.712	.850	.375	.333	.750	.500	.477	.788	.500	.885

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City of Hesperia
N/S: Bandicoot Trail
E/W: Mesquite Street
Weather: Clear

File Name : 04_HES_Bandi_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
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Groups Printed- Total Volume

	Bandicoot Trail Southbound				Mesquite Street Westbound				Bandicoot Trail Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	18	0	1	19	0	45	15	60	2	1	3	6	2	49	0	51	136
04:15 PM	9	2	0	11	2	37	8	47	1	1	0	2	1	27	1	29	89
04:30 PM	11	0	1	12	0	30	10	40	0	1	0	1	3	39	1	43	96
04:45 PM	8	1	1	10	1	33	10	44	0	1	1	2	0	35	1	36	92
Total	46	3	3	52	3	145	43	191	3	4	4	11	6	150	3	159	413
05:00 PM	11	1	1	13	0	45	2	47	1	0	0	1	1	43	1	45	106
05:15 PM	10	1	2	13	0	28	9	37	0	0	1	1	2	44	0	46	97
05:30 PM	7	0	0	7	0	35	8	43	0	0	0	0	2	34	0	36	86
05:45 PM	7	0	0	7	0	37	4	41	0	1	1	2	0	37	0	37	87
Total	35	2	3	40	0	145	23	168	1	1	2	4	5	158	1	164	376
Grand Total	81	5	6	92	3	290	66	359	4	5	6	15	11	308	4	323	789
Apprch %	88	5.4	6.5		0.8	80.8	18.4		26.7	33.3	40		3.4	95.4	1.2		
Total %	10.3	0.6	0.8	11.7	0.4	36.8	8.4	45.5	0.5	0.6	0.8	1.9	1.4	39	0.5	40.9	

	Bandicoot Trail Southbound				Mesquite Street Westbound				Bandicoot Trail Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**18**	0	**1**	**19**	0	**45**	**15**	**60**	**2**	**1**	**3**	**6**	2	**49**	0	**51**	**136**
04:15 PM	9	**2**	0	11	**2**	37	8	47	1	1	0	2	1	27	**1**	29	89
04:30 PM	11	0	1	12	0	30	10	40	0	1	0	1	**3**	39	1	43	96
04:45 PM	8	1	1	10	1	33	10	44	0	1	1	2	0	35	1	36	92
Total Volume	46	3	3	52	3	145	43	191	3	4	4	11	6	150	3	159	413
% App. Total	88.5	5.8	5.8		1.6	75.9	22.5		27.3	36.4	36.4		3.8	94.3	1.9		
PHF	.639	.375	.750	.684	.375	.806	.717	.796	.375	1.00	.333	.458	.500	.765	.750	.779	.759

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City of Hesperia
N/S: Bandicoot Trail
E/W: Mesquite Street
Weather: Clear

File Name : 04_HES_Bandi_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
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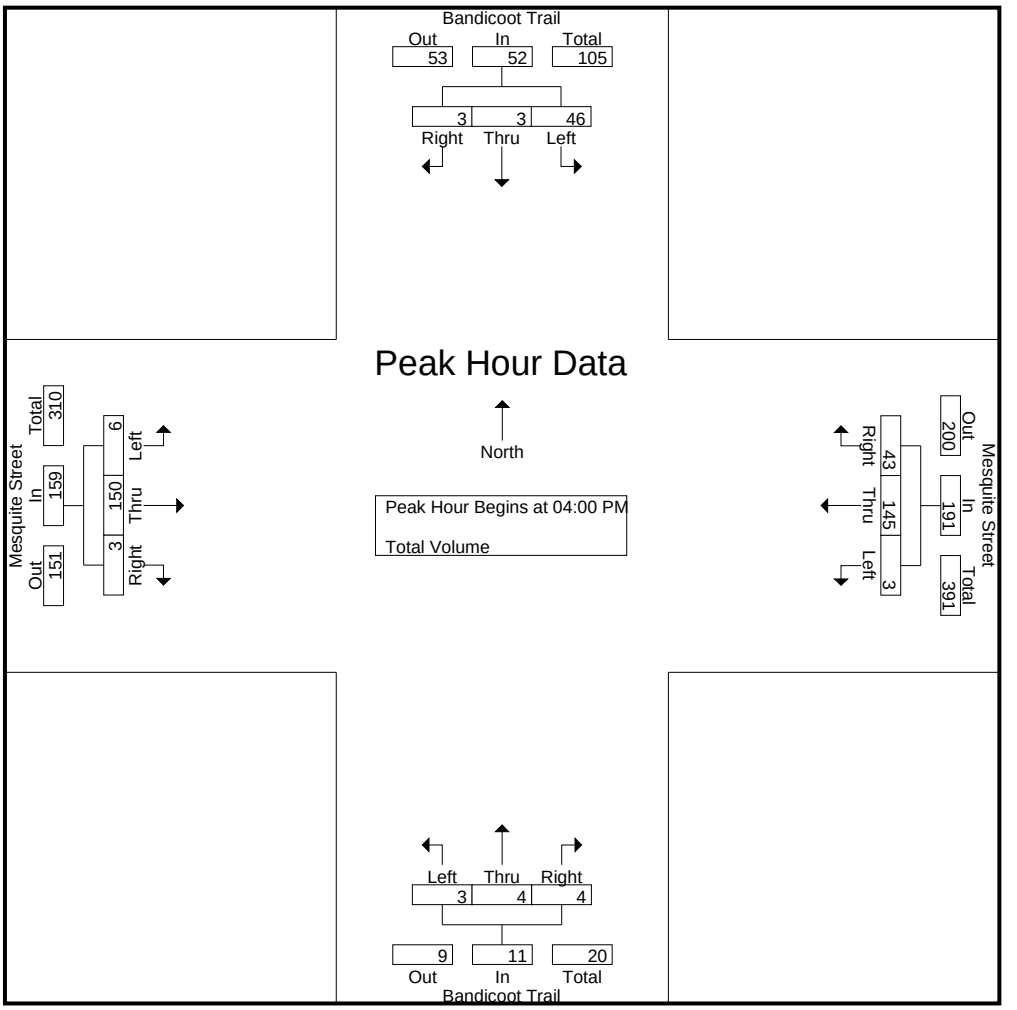

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:30 PM			
+0 mins.	**18**	0	**1**	**19**	0	**45**	**15**	**60**	**2**	**1**	**3**	**6**	**3**	39	**1**	43
+15 mins.	9	**2**	0	11	**2**	37	8	47	1	1	0	2	0	35	1	36
+30 mins.	11	0	1	12	0	30	10	40	0	1	0	1	1	43	1	45
+45 mins.	8	1	1	10	1	33	10	44	0	1	1	2	2	**44**	0	**46**
Total Volume	46	3	3	52	3	145	43	191	3	4	4	11	6	161	3	170
% App. Total	88.5	5.8	5.8		1.6	75.9	22.5		27.3	36.4	36.4		3.5	94.7	1.8	
PHF	.639	.375	.750	.684	.375	.806	.717	.796	.375	1.000	.333	.458	.500	.915	.750	.924

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City of Hesperia
N/S: Seine Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 05_HES_Seine_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Seine Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	104	0	104	0	49	49	153
07:15 AM	0	0	0	99	0	99	0	77	77	176
07:30 AM	0	0	0	89	0	89	0	90	90	179
07:45 AM	1	0	1	65	0	65	0	83	83	149
Total	1	0	1	357	0	357	0	299	299	657
08:00 AM	0	0	0	43	0	43	0	46	46	89
08:15 AM	0	0	0	49	0	49	0	33	33	82
08:30 AM	0	1	1	80	0	80	0	48	48	129
08:45 AM	0	0	0	35	0	35	0	41	41	76
Total	0	1	1	207	0	207	0	168	168	376
Grand Total	1	1	2	564	0	564	0	467	467	1033
Apprch %	50	50		100	0		0	100		
Total %	0.1	0.1	0.2	54.6	0	54.6	0	45.2	45.2	

	Seine Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	**104**	0	**104**	0	49	49	153
07:15 AM	0	0	0	99	0	99	0	77	77	176
07:30 AM	0	0	0	89	0	89	0	**90**	**90**	**179**
07:45 AM	**1**	0	**1**	65	0	65	0	83	83	149
Total Volume	1	0	1	357	0	357	0	299	299	657
% App. Total	100	0		100	0		0	100		
PHF	.250	.000	.250	.858	.000	.858	.000	.831	.831	.918

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City of Hesperia
N/S: Seine Avenue
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File Name : 05_HES_Seine_Mes AM
Site Code : 10521628
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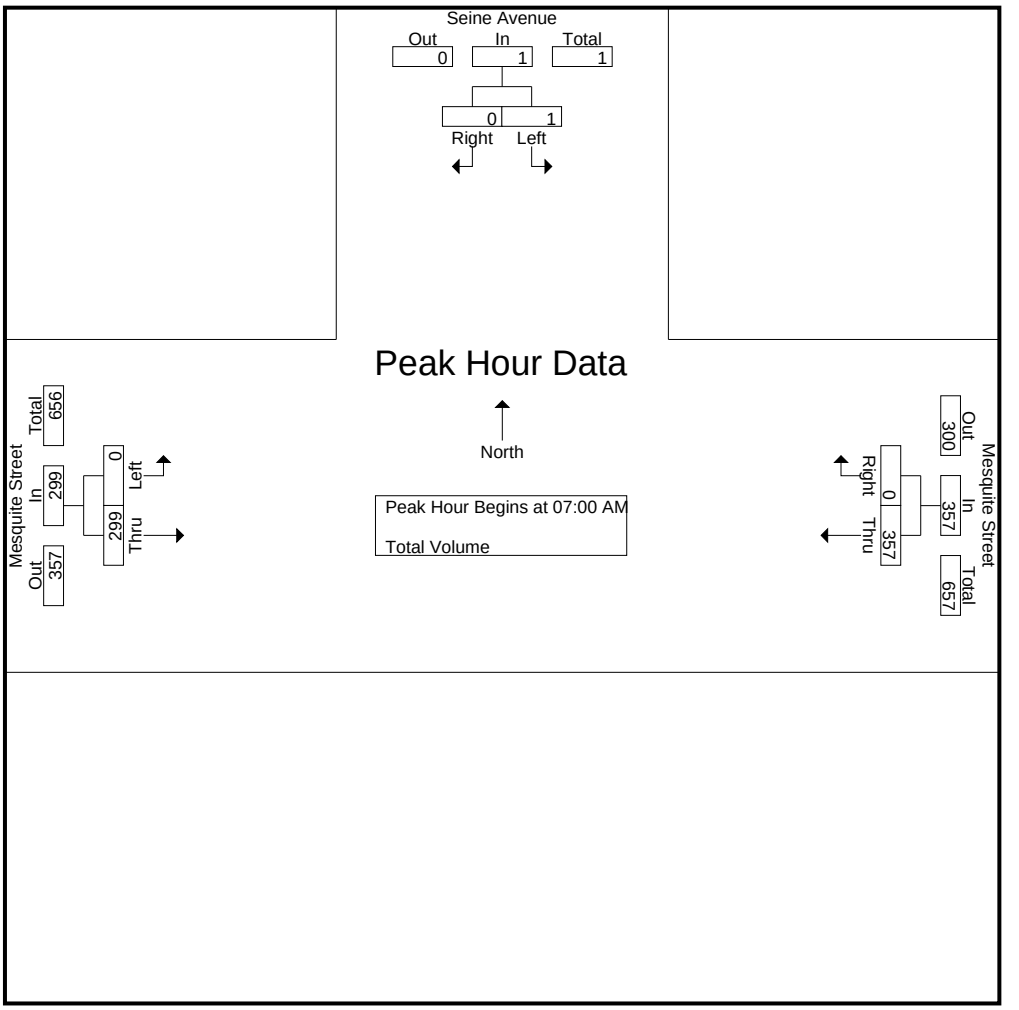

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	0	**1**	**104**	0	**104**	0	49	49
+15 mins.	0	0	0	99	0	99	0	77	77
+30 mins.	0	0	0	89	0	89	0	**90**	**90**
+45 mins.	0	**1**	1	65	0	65	0	83	83
Total Volume	1	1	2	357	0	357	0	299	299
% App. Total	50	50		100	0		0	100	
PHF	.250	.250	.500	.858	.000	.858	.000	.831	.831

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City of Hesperia
N/S: Seine Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 05_HES_Seine_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Seine Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	60	0	60	0	66	66	126
04:15 PM	0	0	0	47	0	47	0	40	40	87
04:30 PM	0	0	0	41	0	41	0	48	48	89
04:45 PM	0	0	0	42	0	42	0	43	43	85
Total	0	0	0	190	0	190	0	197	197	387
05:00 PM	0	0	0	48	1	49	0	53	53	102
05:15 PM	0	0	0	36	0	36	0	54	54	90
05:30 PM	0	0	0	44	0	44	0	47	47	91
05:45 PM	0	0	0	43	0	43	0	45	45	88
Total	0	0	0	171	1	172	0	199	199	371
Grand Total	0	0	0	361	1	362	0	396	396	758
Apprch %	0	0		99.7	0.3		0	100		
Total %	0	0	0	47.6	0.1	47.8	0	52.2	52.2	

	Seine Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	**60**	0	**60**	0	**66**	**66**	**126**
04:15 PM	0	0	0	47	0	47	0	40	40	87
04:30 PM	0	0	0	41	0	41	0	48	48	89
04:45 PM	0	0	0	42	0	42	0	43	43	85
Total Volume	0	0	0	190	0	190	0	197	197	387
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.792	.000	.792	.000	.746	.746	.768

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City of Hesperia
N/S: Seine Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 05_HES_Seine_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
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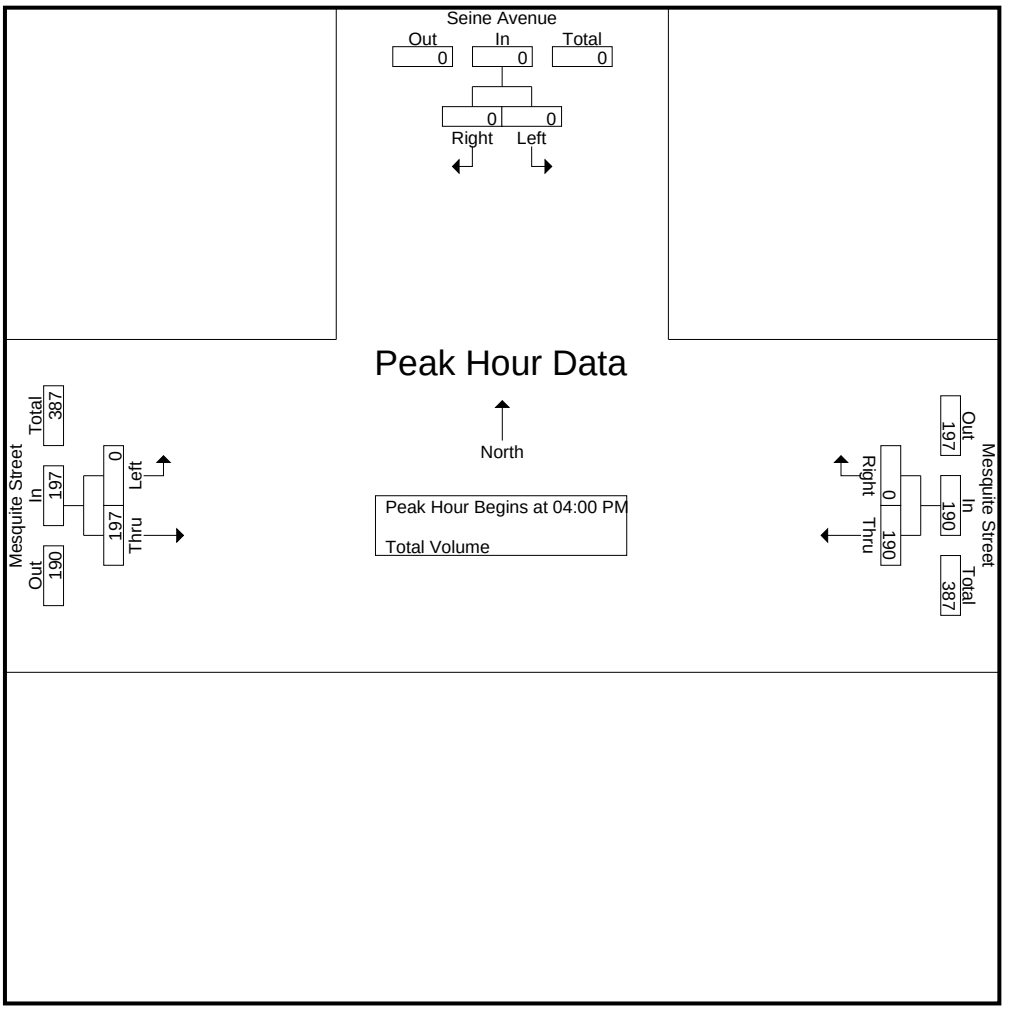

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			05:00 PM		
+0 mins.	0	0	0	**60**	0	**60**	0	53	53
+15 mins.	0	0	0	47	0	47	0	**54**	**54**
+30 mins.	0	0	0	41	0	41	0	47	47
+45 mins.	0	0	0	42	0	42	0	45	45
Total Volume	0	0	0	190	0	190	0	199	199
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.792	.000	.792	.000	.921	.921

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City of Hesperia
N/S: Topaz Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 06_HES_Topaz_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Topaz Avenue Southbound				Mesquite Street Westbound				Topaz Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	103	0	103	2	0	0	2	1	46	2	49	154
07:15 AM	1	0	1	2	0	94	0	94	2	0	0	2	0	78	1	79	177
07:30 AM	0	0	1	1	0	86	1	87	0	0	1	1	2	88	0	90	179
07:45 AM	0	0	0	0	0	65	1	66	0	0	0	0	0	83	0	83	149
Total	1	0	2	3	0	348	2	350	4	0	1	5	3	295	3	301	659
08:00 AM	0	0	0	0	0	41	0	41	1	0	0	1	0	46	0	46	88
08:15 AM	1	0	0	1	0	50	0	50	0	0	0	0	0	32	1	33	84
08:30 AM	0	0	0	0	0	77	1	78	1	0	0	1	0	46	0	46	125
08:45 AM	0	0	0	0	0	35	1	36	0	0	0	0	0	42	0	42	78
Total	1	0	0	1	0	203	2	205	2	0	0	2	0	166	1	167	375
Grand Total	2	0	2	4	0	551	4	555	6	0	1	7	3	461	4	468	1034
Apprch %	50	0	50		0	99.3	0.7		85.7	0	14.3		0.6	98.5	0.9		
Total %	0.2	0	0.2	0.4	0	53.3	0.4	53.7	0.6	0	0.1	0.7	0.3	44.6	0.4	45.3	

	Topaz Avenue Southbound				Mesquite Street Westbound				Topaz Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**103**	0	**103**	**2**	0	0	**2**	1	46	**2**	49	154
07:15 AM	**1**	0	**1**	**2**	0	94	0	94	2	0	0	2	0	78	1	79	177
07:30 AM	0	0	1	1	0	86	**1**	87	0	0	**1**	1	**2**	**88**	0	**90**	**179**
07:45 AM	0	0	0	0	0	65	1	66	0	0	0	0	0	83	0	83	149
Total Volume	1	0	2	3	0	348	2	350	4	0	1	5	3	295	3	301	659
% App. Total	33.3	0	66.7		0	99.4	0.6		80	0	20		1	98	1		
PHF	.250	.000	.500	.375	.000	.845	.500	.850	.500	.000	.250	.625	.375	.838	.375	.836	.920

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File Name : 06_HES_Topaz_Mes AM
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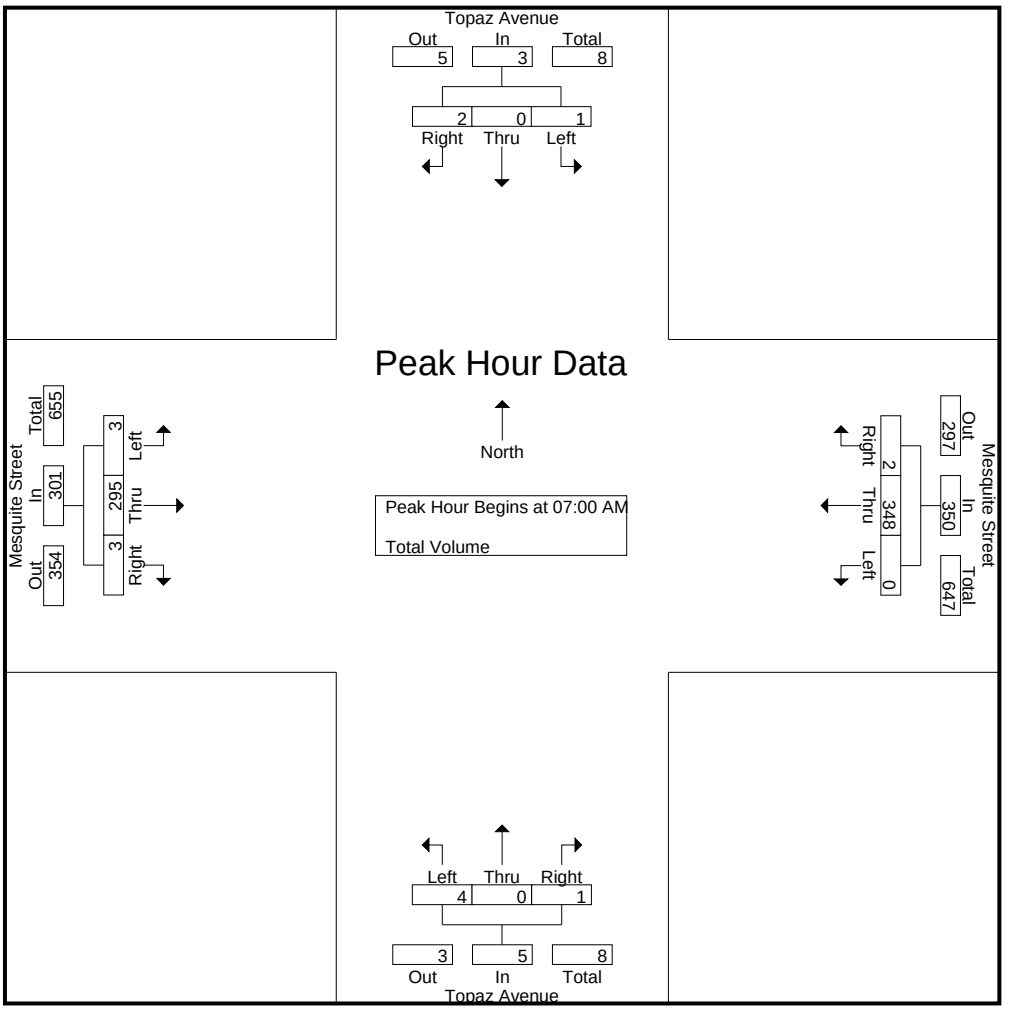

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	**103**	0	**103**	**2**	0	0	**2**	1	46	**2**	49
+15 mins.	**1**	0	**1**	**2**	0	94	0	94	2	0	0	2	0	78	1	79
+30 mins.	0	0	1	1	0	86	**1**	87	0	0	**1**	1	**2**	**88**	0	**90**
+45 mins.	0	0	0	0	0	65	1	66	0	0	0	0	0	83	0	83
Total Volume	1	0	2	3	0	348	2	350	4	0	1	5	3	295	3	301
% App. Total	33.3	0	66.7		0	99.4	0.6		80	0	20		1	98	1	
PHF	.250	.000	.500	.375	.000	.845	.500	.850	.500	.000	.250	.625	.375	.838	.375	.836

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City of Hesperia
N/S: Topaz Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 06_HES_Topaz_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Topaz Avenue Southbound				Mesquite Street Westbound				Topaz Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	58	1	59	0	0	0	0	1	64	0	65	125
04:15 PM	0	0	0	0	0	46	1	47	1	0	0	1	0	39	1	40	88
04:30 PM	0	0	0	0	1	40	1	42	1	0	1	2	0	47	0	47	91
04:45 PM	0	0	0	0	0	42	0	42	0	0	0	0	0	44	0	44	86
Total	1	0	0	1	1	186	3	190	2	0	1	3	1	194	1	196	390
05:00 PM	0	0	0	0	0	49	1	50	0	0	0	0	1	52	0	53	103
05:15 PM	1	0	0	1	1	36	2	39	0	0	0	0	0	53	0	53	93
05:30 PM	0	0	0	0	0	45	1	46	0	0	0	0	1	46	0	47	93
05:45 PM	2	0	0	2	0	42	0	42	0	0	0	0	2	41	0	43	87
Total	3	0	0	3	1	172	4	177	0	0	0	0	4	192	0	196	376
Grand Total	4	0	0	4	2	358	7	367	2	0	1	3	5	386	1	392	766
Apprch %	100	0	0		0.5	97.5	1.9		66.7	0	33.3		1.3	98.5	0.3		
Total %	0.5	0	0	0.5	0.3	46.7	0.9	47.9	0.3	0	0.1	0.4	0.7	50.4	0.1	51.2	

	Topaz Avenue Southbound				Mesquite Street Westbound				Topaz Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	0	**1**	0	**58**	**1**	**59**	0	0	0	0	**1**	**64**	0	**65**	**125**
04:15 PM	0	0	0	0	0	46	1	47	**1**	0	0	1	0	39	**1**	40	88
04:30 PM	0	0	0	0	**1**	40	1	42	1	0	**1**	**2**	0	47	0	47	91
04:45 PM	0	0	0	0	0	42	0	42	0	0	0	0	0	44	0	44	86
Total Volume	1	0	0	1	1	186	3	190	2	0	1	3	1	194	1	196	390
% App. Total	100	0	0		0.5	97.9	1.6		66.7	0	33.3		0.5	99	0.5		
PHF	.250	.000	.000	.250	.250	.802	.750	.805	.500	.000	.250	.375	.250	.758	.250	.754	.780

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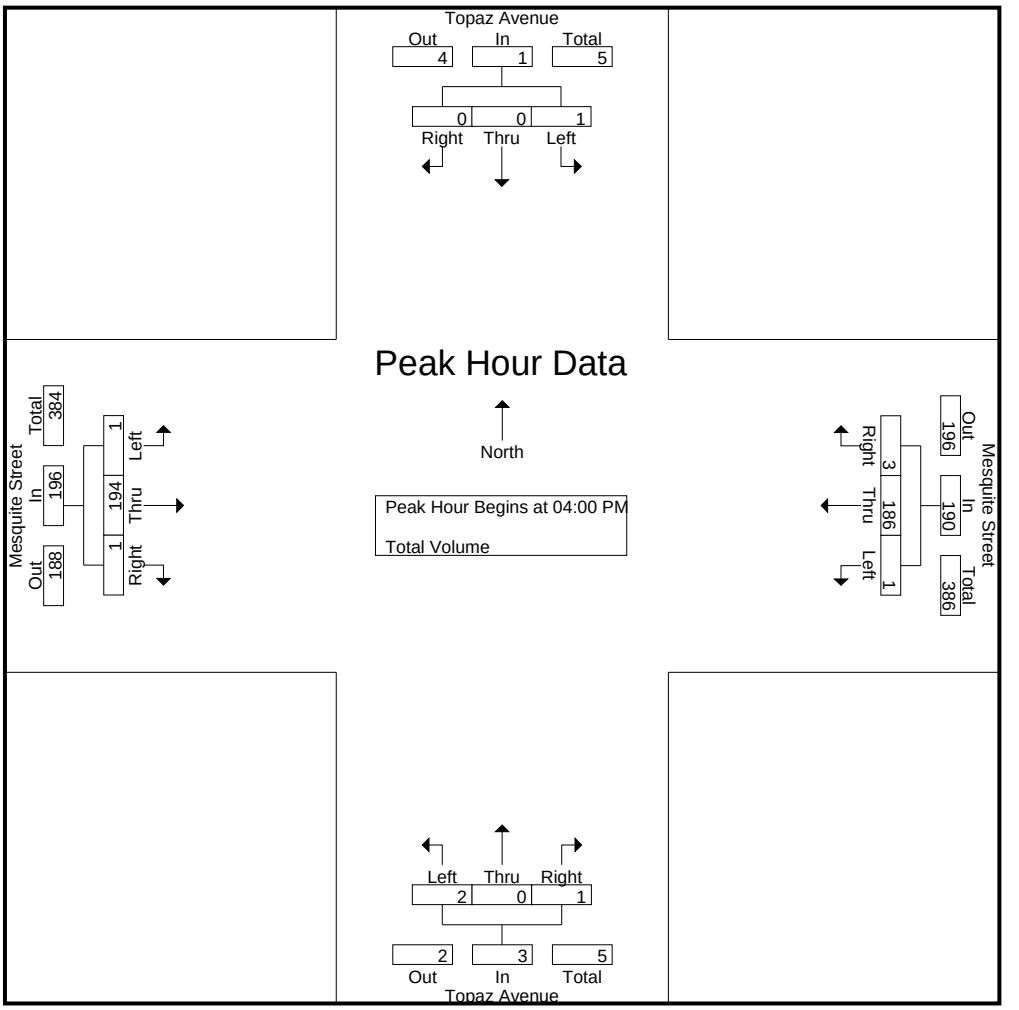
City of Hesperia
N/S: Topaz Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 06_HES_Topaz_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	0	0	0	0	**58**	**1**	**59**	0	0	0	0	0	47	0	47
+15 mins.	1	0	0	1	0	46	1	47	**1**	0	0	1	0	44	0	44
+30 mins.	0	0	0	0	**1**	40	1	42	1	0	**1**	**2**	**1**	52	0	**53**
+45 mins.	**2**	0	0	**2**	0	42	0	42	0	0	0	0	0	**53**	0	53
Total Volume	3	0	0	3	1	186	3	190	2	0	1	3	1	196	0	197
% App. Total	100	0	0		0.5	97.9	1.6		66.7	0	33.3		0.5	99.5	0	
PHF	.375	.000	.000	.375	.250	.802	.750	.805	.500	.000	.250	.375	.250	.925	.000	.929

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City of Hesperia
N/S: Turko Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 07_HES_Turko_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Turko Avenue Southbound				Mesquite Street Westbound				Turko Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	100	0	100	3	0	1	4	0	43	0	43	147
07:15 AM	1	0	0	1	1	93	0	94	1	0	0	1	0	76	1	77	173
07:30 AM	0	0	1	1	1	83	0	84	0	0	1	1	1	87	3	91	177
07:45 AM	1	0	0	1	1	68	0	69	0	0	0	0	0	83	1	84	154
Total	2	0	1	3	3	344	0	347	4	0	2	6	1	289	5	295	651
08:00 AM	0	0	0	0	0	40	0	40	0	0	1	1	0	45	0	45	86
08:15 AM	0	0	1	1	1	48	0	49	0	0	1	1	0	30	1	31	82
08:30 AM	0	0	1	1	0	77	1	78	0	0	1	1	0	46	1	47	127
08:45 AM	0	0	0	0	1	33	1	35	1	0	2	3	1	39	1	41	79
Total	0	0	2	2	2	198	2	202	1	0	5	6	1	160	3	164	374
Grand Total	2	0	3	5	5	542	2	549	5	0	7	12	2	449	8	459	1025
Apprch %	40	0	60		0.9	98.7	0.4		41.7	0	58.3		0.4	97.8	1.7		
Total %	0.2	0	0.3	0.5	0.5	52.9	0.2	53.6	0.5	0	0.7	1.2	0.2	43.8	0.8	44.8	

	Turko Avenue Southbound				Mesquite Street Westbound				Turko Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**100**	0	**100**	**3**	0	**1**	**4**	0	43	0	43	147
07:15 AM	**1**	0	0	**1**	**1**	93	0	94	1	0	0	1	0	76	1	77	173
07:30 AM	0	0	**1**	1	1	83	0	84	0	0	1	1	**1**	**87**	**3**	**91**	**177**
07:45 AM	1	0	0	1	1	68	0	69	0	0	0	0	0	83	1	84	154
Total Volume	2	0	1	3	3	344	0	347	4	0	2	6	1	289	5	295	651
% App. Total	66.7	0	33.3		0.9	99.1	0		66.7	0	33.3		0.3	98	1.7		
PHF	.500	.000	.250	.750	.750	.860	.000	.868	.333	.000	.500	.375	.250	.830	.417	.810	.919

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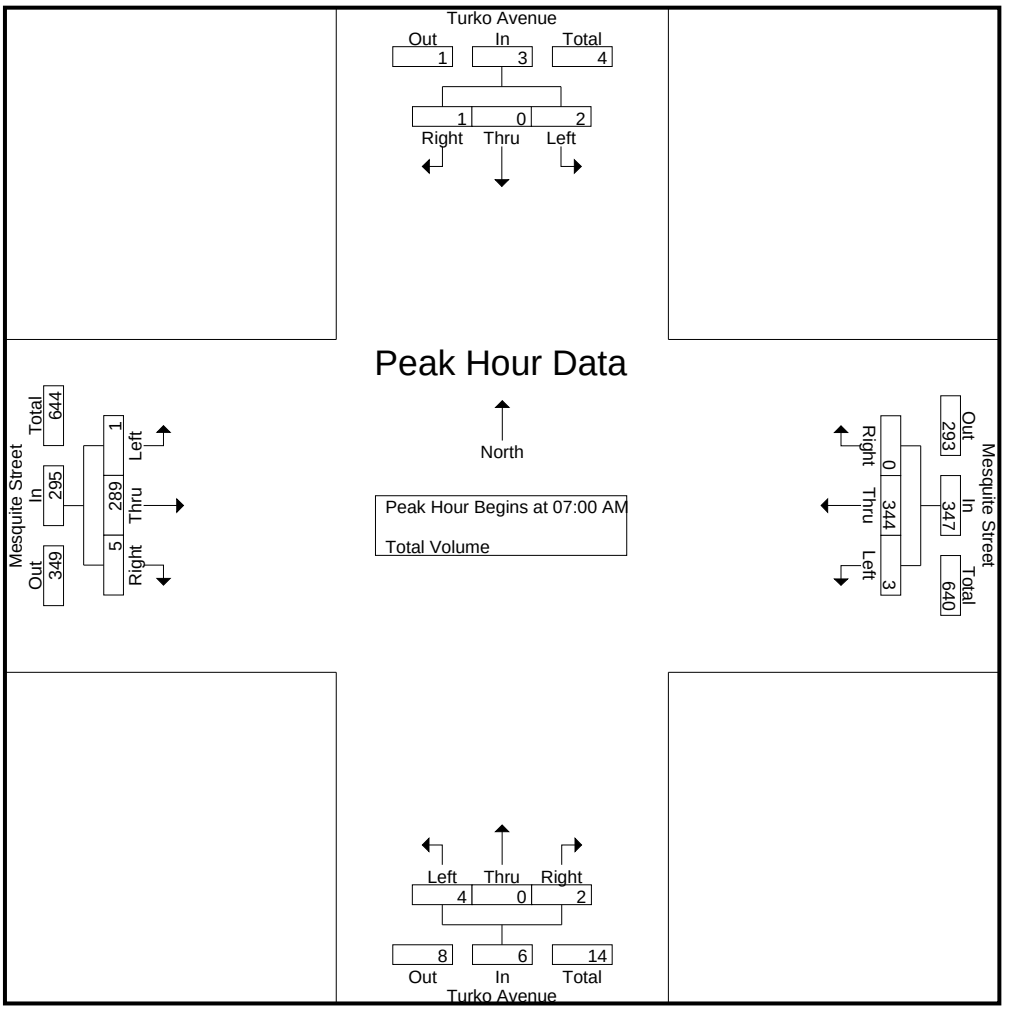
City of Hesperia
N/S: Turko Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 07_HES_Turko_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 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				07:15 AM			
+0 mins.	0	0	0	0	0	**100**	0	**100**	**3**	0	**1**	**4**	0	76	1	77
+15 mins.	**1**	0	0	**1**	**1**	93	0	94	1	0	0	1	**1**	**87**	**3**	**91**
+30 mins.	0	0	**1**	1	1	83	0	84	0	0	1	1	0	83	1	84
+45 mins.	1	0	0	1	1	68	0	69	0	0	0	0	0	45	0	45
Total Volume	2	0	1	3	3	344	0	347	4	0	2	6	1	291	5	297
% App. Total	66.7	0	33.3		0.9	99.1	0		66.7	0	33.3		0.3	98	1.7	
PHF	.500	.000	.250	.750	.750	.860	.000	.868	.333	.000	.500	.375	.250	.836	.417	.816

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City of Hesperia
N/S: Turko Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 07_HES_Turko_Mes PM
Site Code : 10521628
Start Date : 11/2/2021

Groups Printed- Total Volume

	Turko Avenue Southbound				Mesquite Street Westbound				Turko Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	58	0	58	0	0	1	1	0	65	1	66	125
04:15 PM	0	0	0	0	5	47	1	53	0	0	0	0	0	38	0	38	91
04:30 PM	0	0	0	0	1	40	1	42	1	0	2	3	1	46	1	48	93
04:45 PM	0	0	1	1	0	42	1	43	0	0	1	1	0	45	0	45	90
Total	0	0	1	1	6	187	3	196	1	0	4	5	1	194	2	197	399
05:00 PM	0	0	0	0	1	49	0	50	0	0	2	2	0	51	0	51	103
05:15 PM	0	0	1	1	2	39	1	42	0	0	1	1	0	53	1	54	98
05:30 PM	0	0	0	0	2	45	0	47	0	0	3	3	0	44	2	46	96
05:45 PM	0	0	0	0	2	43	1	46	0	0	0	0	1	42	1	44	90
Total	0	0	1	1	7	176	2	185	0	0	6	6	1	190	4	195	387
Grand Total	0	0	2	2	13	363	5	381	1	0	10	11	2	384	6	392	786
Apprch %	0	0	100		3.4	95.3	1.3		9.1	0	90.9		0.5	98	1.5		
Total %	0	0	0.3	0.3	1.7	46.2	0.6	48.5	0.1	0	1.3	1.4	0.3	48.9	0.8	49.9	

	Turko Avenue Southbound				Mesquite Street Westbound				Turko Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**58**	0	**58**	0	0	1	1	0	**65**	**1**	**66**	**125**
04:15 PM	0	0	0	0	**5**	47	**1**	53	0	0	0	0	0	38	0	38	91
04:30 PM	0	0	0	0	1	40	1	42	**1**	0	**2**	**3**	**1**	46	1	48	93
04:45 PM	0	0	**1**	**1**	0	42	1	43	0	0	1	1	0	45	0	45	90
Total Volume	0	0	1	1	6	187	3	196	1	0	4	5	1	194	2	197	399
% App. Total	0	0	100		3.1	95.4	1.5		20	0	80		0.5	98.5	1		
PHF	.000	.000	.250	.250	.300	.806	.750	.845	.250	.000	.500	.417	.250	.746	.500	.746	.798

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City of Hesperia
N/S: Turko Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 07_HES_Turko_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
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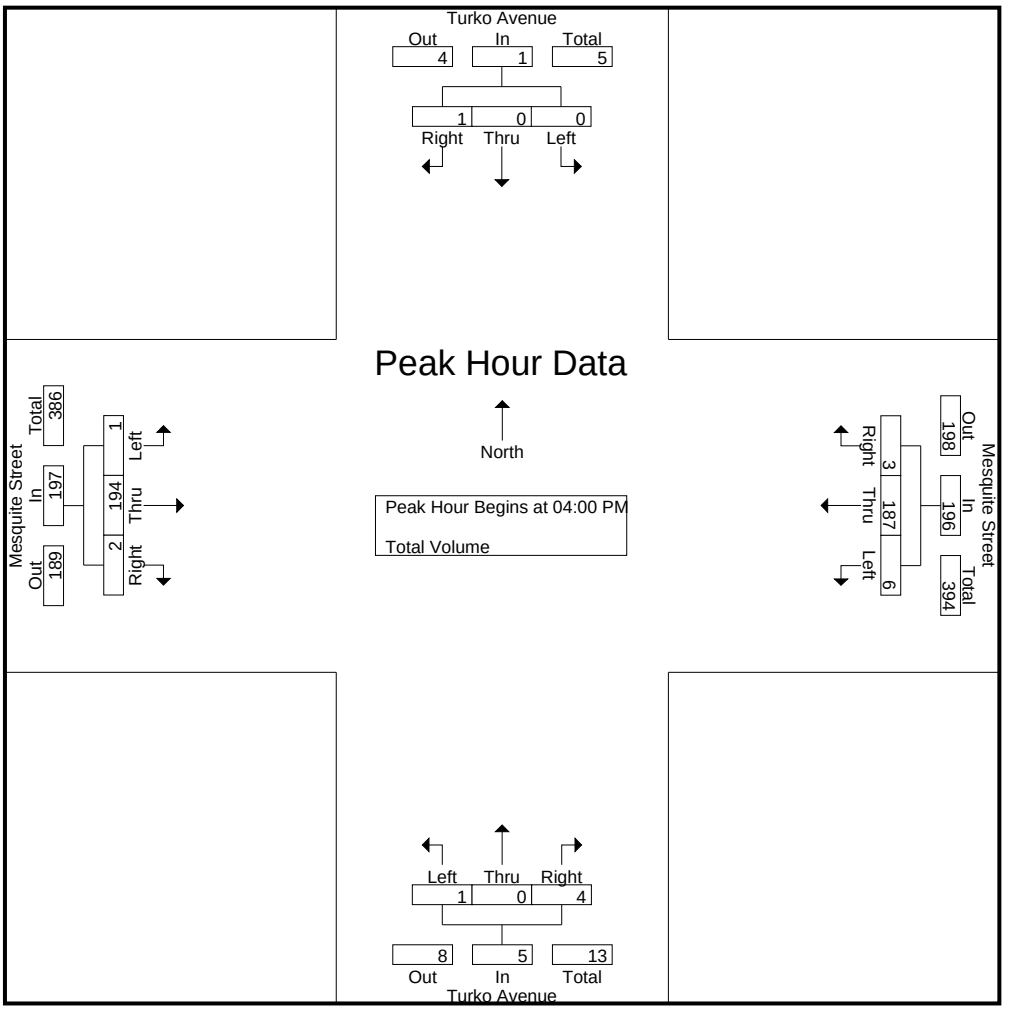

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	**58**	0	**58**	**1**	0	**2**	**3**	**1**	46	**1**	48
+15 mins.	0	0	**1**	**1**	**5**	47	**1**	53	0	0	1	1	0	45	0	45
+30 mins.	0	0	0	0	1	40	1	42	0	0	2	2	0	51	0	51
+45 mins.	0	0	1	1	0	42	1	43	0	0	1	1	0	**53**	1	**54**
Total Volume	0	0	2	2	6	187	3	196	1	0	6	7	1	195	2	198
% App. Total	0	0	100		3.1	95.4	1.5		14.3	0	85.7		0.5	98.5	1	
PHF	.000	.000	.500	.500	.300	.806	.750	.845	.250	.000	.750	.583	.250	.920	.500	.917

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City of Hesperia
N/S: Tamarisk Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 08_HES_Tamarisk_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Tamarisk Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	100	0	100	0	43	43	143
07:15 AM	0	1	1	94	0	94	1	76	77	172
07:30 AM	0	0	0	82	1	83	0	86	86	169
07:45 AM	0	0	0	68	0	68	0	86	86	154
Total	0	1	1	344	1	345	1	291	292	638
08:00 AM	0	0	0	39	1	40	0	46	46	86
08:15 AM	0	0	0	50	0	50	0	31	31	81
08:30 AM	0	0	0	77	0	77	0	47	47	124
08:45 AM	0	0	0	36	0	36	0	41	41	77
Total	0	0	0	202	1	203	0	165	165	368
Grand Total	0	1	1	546	2	548	1	456	457	1006
Apprch %	0	100		99.6	0.4		0.2	99.8		
Total %	0	0.1	0.1	54.3	0.2	54.5	0.1	45.3	45.4	

	Tamarisk Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	**100**	0	**100**	0	43	43	143
07:15 AM	0	**1**	**1**	94	0	94	**1**	76	77	**172**
07:30 AM	0	0	0	82	**1**	83	0	**86**	**86**	169
07:45 AM	0	0	0	68	0	68	0	86	86	154
Total Volume	0	1	1	344	1	345	1	291	292	638
% App. Total	0	100		99.7	0.3		0.3	99.7		
PHF	.000	.250	.250	.860	.250	.863	.250	.846	.849	.927

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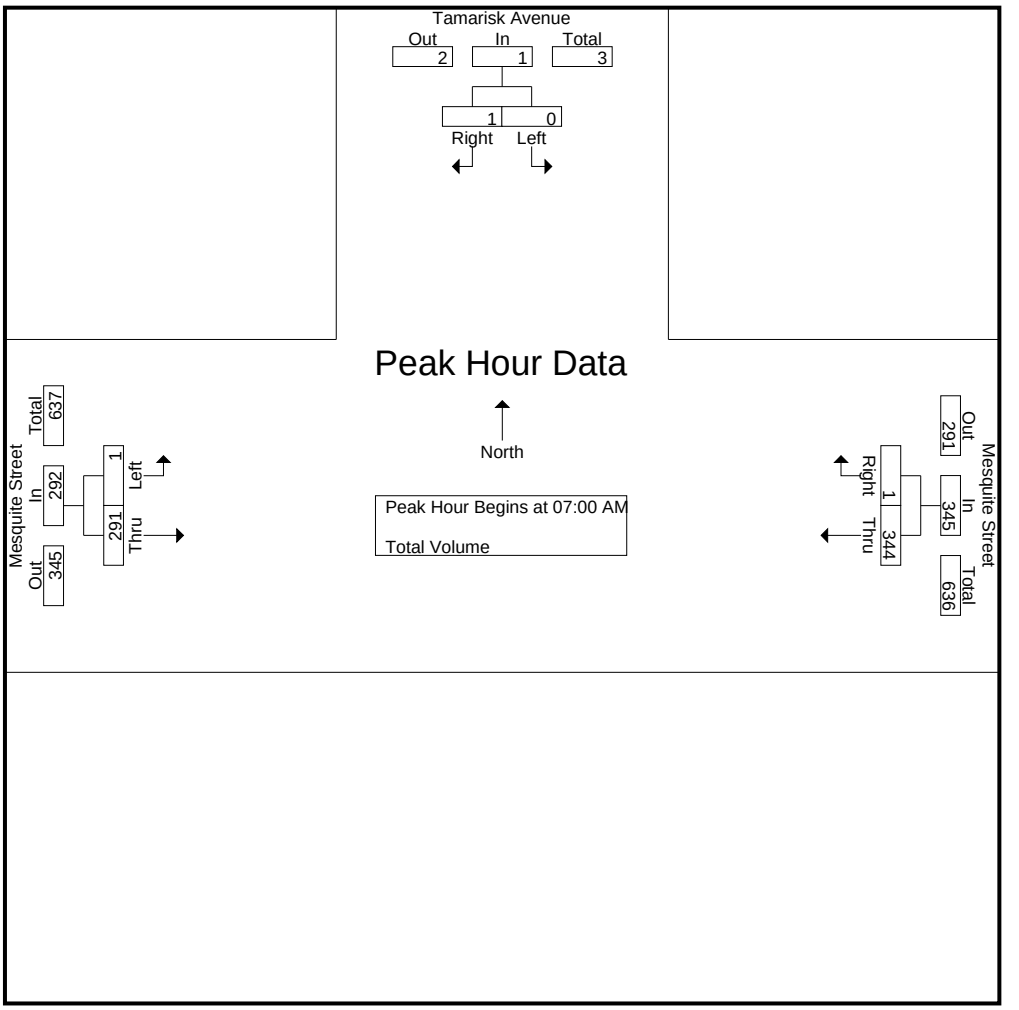
City of Hesperia
N/S: Tamarisk Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 08_HES_Tamarisk_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	0	0	**100**	0	**100**	**1**	76	77
+15 mins.	0	**1**	**1**	94	0	94	0	**86**	**86**
+30 mins.	0	0	0	82	**1**	83	0	86	86
+45 mins.	0	0	0	68	0	68	0	46	46
Total Volume	0	1	1	344	1	345	1	294	295
% App. Total	0	100		99.7	0.3		0.3	99.7	
PHF	.000	.250	.250	.860	.250	.863	.250	.855	.858

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City of Hesperia
N/S: Tamarisk Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 08_HES_Tamarisk_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Tamarisk Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	1	2	58	0	58	1	64	65	125
04:15 PM	0	2	2	52	1	53	0	38	38	93
04:30 PM	0	0	0	42	0	42	0	49	49	91
04:45 PM	0	0	0	45	0	45	1	45	46	91
Total	1	3	4	197	1	198	2	196	198	400
05:00 PM	0	0	0	49	0	49	0	54	54	103
05:15 PM	0	0	0	43	0	43	0	55	55	98
05:30 PM	0	0	0	46	0	46	0	48	48	94
05:45 PM	0	0	0	47	0	47	0	41	41	88
Total	0	0	0	185	0	185	0	198	198	383
Grand Total	1	3	4	382	1	383	2	394	396	783
Apprch %	25	75		99.7	0.3		0.5	99.5		
Total %	0.1	0.4	0.5	48.8	0.1	48.9	0.3	50.3	50.6	

	Tamarisk Avenue Southbound			Mesquite Street Westbound			Mesquite Street Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**1**	1	**2**	**58**	0	**58**	**1**	**64**	**65**	**125**
04:15 PM	0	**2**	2	52	**1**	53	0	38	38	93
04:30 PM	0	0	0	42	0	42	0	49	49	91
04:45 PM	0	0	0	45	0	45	1	45	46	91
Total Volume	1	3	4	197	1	198	2	196	198	400
% App. Total	25	75		99.5	0.5		1	99		
PHF	.250	.375	.500	.849	.250	.853	.500	.766	.762	.800

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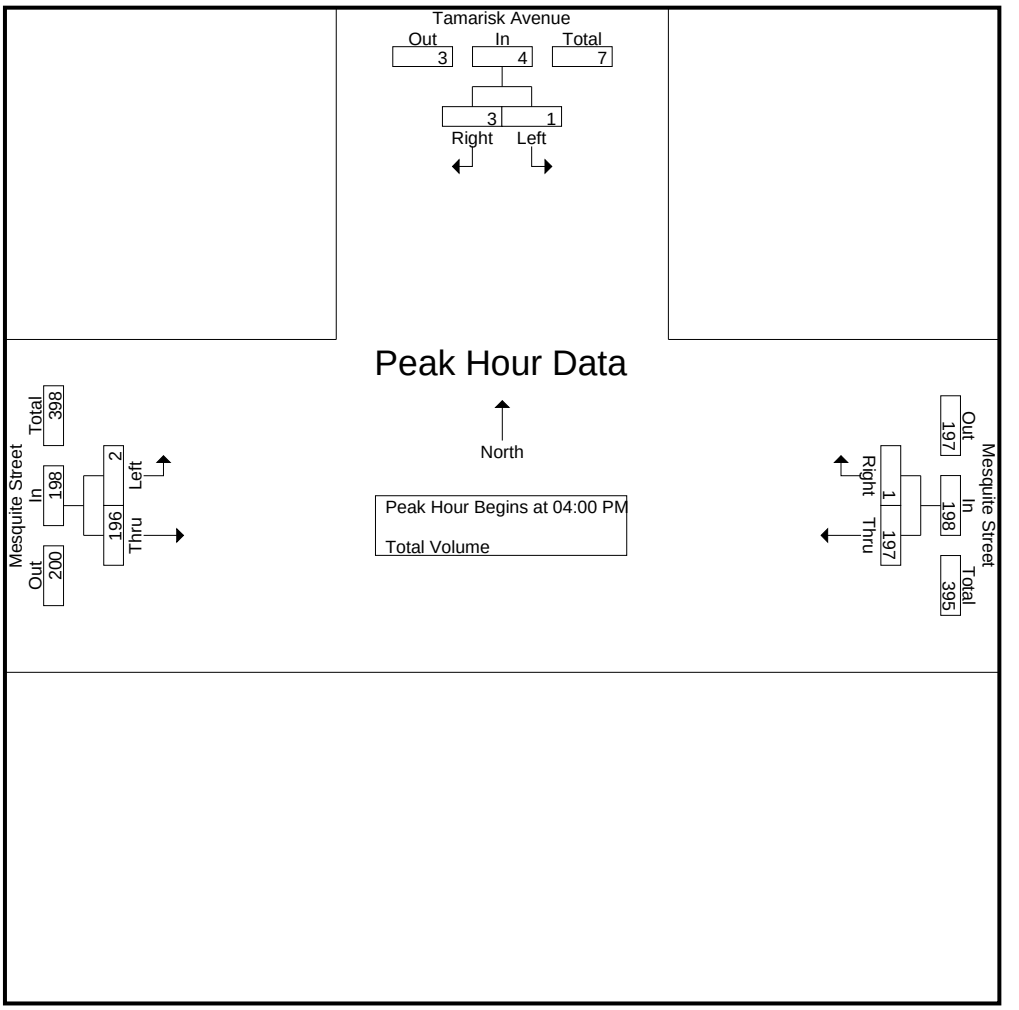
City of Hesperia
N/S: Tamarisk Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 08_HES_Tamarisk_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	**1**	1	**2**	**58**	0	**58**	0	49	49
+15 mins.	0	**2**	2	52	**1**	53	**1**	45	46
+30 mins.	0	0	0	42	0	42	0	54	54
+45 mins.	0	0	0	45	0	45	0	**55**	**55**
Total Volume	1	3	4	197	1	198	1	203	204
% App. Total	25	75		99.5	0.5		0.5	99.5	
PHF	.250	.375	.500	.849	.250	.853	.250	.923	.927

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City of Hesperia
N/S: Primrose Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 09_HES_Primrose_Mes AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Mesquite Street Westbound			Primrose Avenue Northbound			Mesquite Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	100	100	0	0	0	44	0	44	144
07:15 AM	0	95	95	0	1	1	76	0	76	172
07:30 AM	0	84	84	0	0	0	87	0	87	171
07:45 AM	0	67	67	0	0	0	86	0	86	153
Total	0	346	346	0	1	1	293	0	293	640
08:00 AM	0	40	40	0	0	0	46	0	46	86
08:15 AM	0	51	51	0	0	0	31	0	31	82
08:30 AM	0	77	77	0	0	0	46	0	46	123
08:45 AM	0	35	35	0	0	0	42	0	42	77
Total	0	203	203	0	0	0	165	0	165	368
Grand Total	0	549	549	0	1	1	458	0	458	1008
Apprch %	0	100		0	100		100	0		
Total %	0	54.5	54.5	0	0.1	0.1	45.4	0	45.4	

	Mesquite Street Westbound			Primrose Avenue Northbound			Mesquite Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**100**	**100**	0	0	0	44	0	44	144
07:15 AM	0	95	95	0	**1**	**1**	76	0	76	**172**
07:30 AM	0	84	84	0	0	0	**87**	0	**87**	171
07:45 AM	0	67	67	0	0	0	86	0	86	153
Total Volume	0	346	346	0	1	1	293	0	293	640
% App. Total	0	100		0	100		100	0		
PHF	.000	.865	.865	.000	.250	.250	.842	.000	.842	.930

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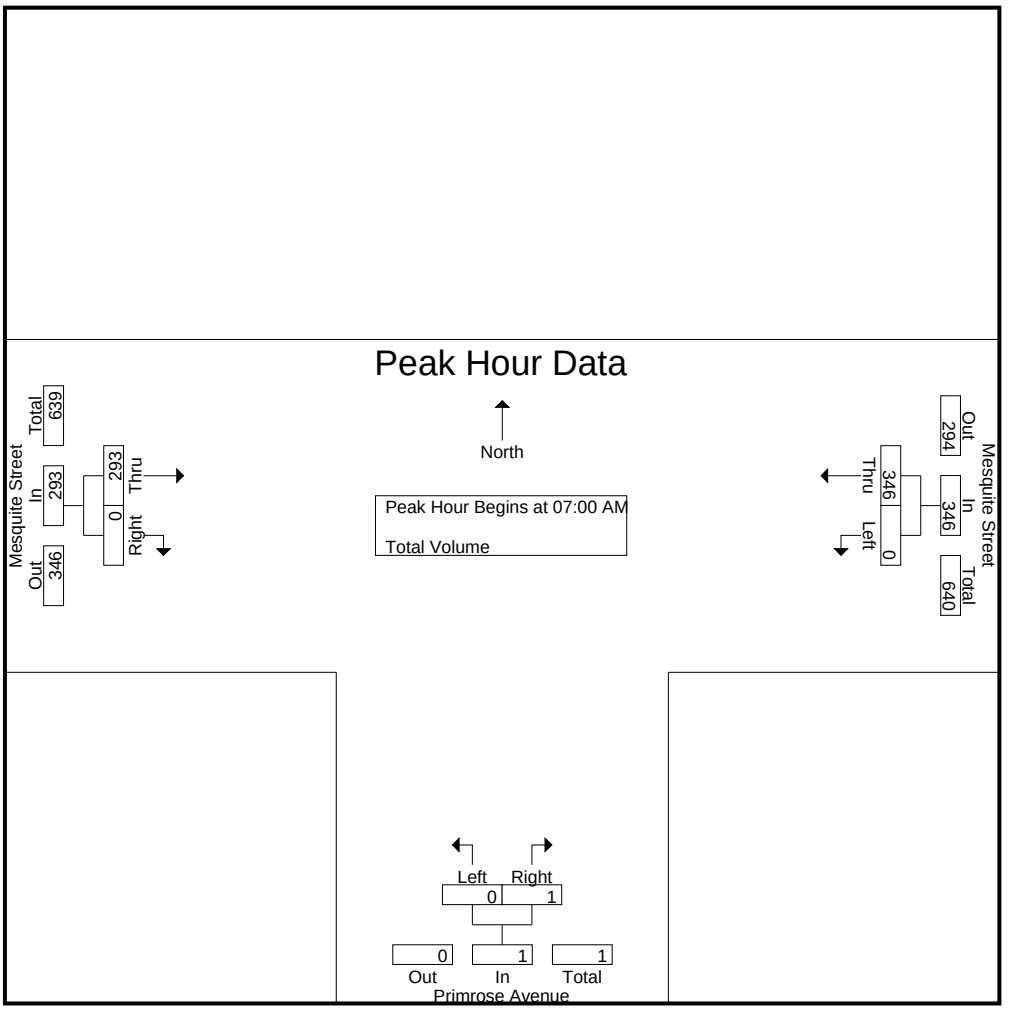
City of Hesperia
N/S: Primrose Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 09_HES_Primrose_Mes AM
Site Code : 10521628
Start Date : 11/2/2021



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	**100**	**100**	0	0	0	76	0	76
+15 mins.	0	95	95	0	**1**	**1**	**87**	0	**87**
+30 mins.	0	84	84	0	0	0	86	0	86
+45 mins.	0	67	67	0	0	0	46	0	46
Total Volume	0	346	346	0	1	1	295	0	295
% App. Total	0	100		0	100		100	0	
PHF	.000	.865	.865	.000	.250	.250	.848	.000	.848

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City of Hesperia
N/S: Primrose Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 09_HES_Primrose_Mes PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Mesquite Street Westbound			Primrose Avenue Northbound			Mesquite Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	59	59	0	1	1	64	0	64	124
04:15 PM	2	52	54	0	0	0	39	0	39	93
04:30 PM	0	40	40	0	0	0	48	0	48	88
04:45 PM	0	46	46	0	1	1	43	0	43	90
Total	2	197	199	0	2	2	194	0	194	395
05:00 PM	0	50	50	0	0	0	54	0	54	104
05:15 PM	1	42	43	0	0	0	53	0	53	96
05:30 PM	0	46	46	0	0	0	49	0	49	95
05:45 PM	0	45	45	1	0	1	41	1	42	88
Total	1	183	184	1	0	1	197	1	198	383
Grand Total	3	380	383	1	2	3	391	1	392	778
Apprch %	0.8	99.2		33.3	66.7		99.7	0.3		
Total %	0.4	48.8	49.2	0.1	0.3	0.4	50.3	0.1	50.4	

	Mesquite Street Westbound			Primrose Avenue Northbound			Mesquite Street Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**59**	**59**	0	**1**	**1**	**64**	0	**64**	**124**
04:15 PM	**2**	52	54	0	0	0	39	0	39	93
04:30 PM	0	40	40	0	0	0	48	0	48	88
04:45 PM	0	46	46	0	1	1	43	0	43	90
Total Volume	2	197	199	0	2	2	194	0	194	395
% App. Total	1	99		0	100		100	0		
PHF	.250	.835	.843	.000	.500	.500	.758	.000	.758	.796

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City of Hesperia
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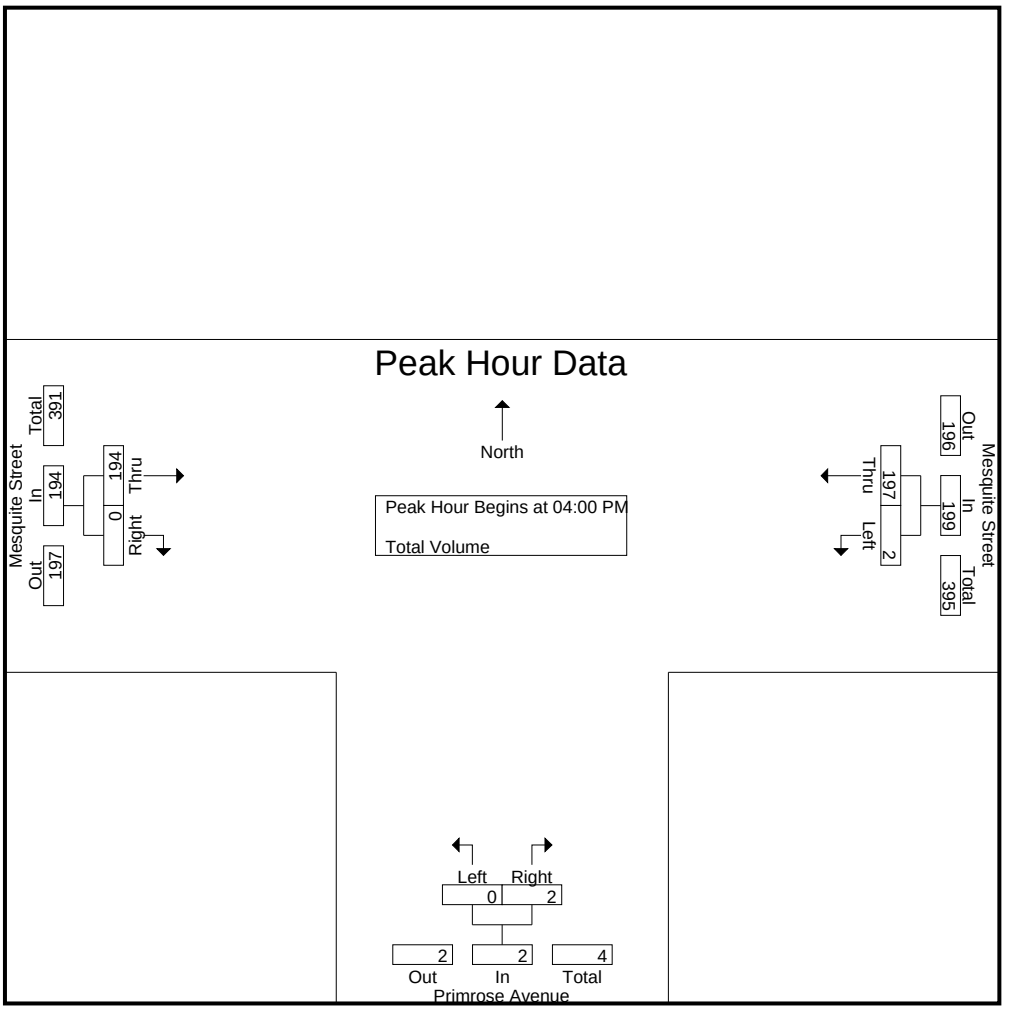
File Name : 09_HES_Primrose_Mes PM
Site Code : 10521628
Start Date : 11/2/2021



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:45 PM		
+0 mins.	0	**59**	**59**	0	**1**	**1**	43	0	43
+15 mins.	**2**	52	54	0	0	0	**54**	0	**54**
+30 mins.	0	40	40	0	0	0	53	0	53
+45 mins.	0	46	46	0	1	1	49	0	49
Total Volume	2	197	199	0	2	2	199	0	199
% App. Total	1	99		0	100		100	0	
PHF	.250	.835	.843	.000	.500	.500	.921	.000	.921

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City of Hesperia
N/S: Maple Avenue
E/W: Mesquite Street
Weather: Clear

File Name : 10_HES_Maple_Mes AM
Site Code : 10521628
Start Date : 12/16/2021
Page No : 1

Groups Printed- Total Volume

	Maple Avenue Southbound				Mesquite Street Westbound				Maple Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	9	19	29	2	36	1	39	32	19	3	54	10	28	12	50	172
07:15 AM	0	14	19	33	5	52	1	58	47	15	2	64	18	50	11	79	234
07:30 AM	1	14	27	42	0	46	1	47	17	9	2	28	20	52	30	102	219
07:45 AM	2	17	17	36	4	51	1	56	16	10	2	28	20	54	19	93	213
Total	4	54	82	140	11	185	4	200	112	53	9	174	68	184	72	324	838
08:00 AM	3	27	19	49	9	41	3	53	9	19	2	30	12	47	7	66	198
08:15 AM	3	53	24	80	15	50	3	68	3	21	5	29	10	34	6	50	227
08:30 AM	0	29	8	37	5	20	2	27	5	17	4	26	8	42	10	60	150
08:45 AM	3	14	2	19	3	10	4	17	6	28	4	38	15	33	8	56	130
Total	9	123	53	185	32	121	12	165	23	85	15	123	45	156	31	232	705
Grand Total	13	177	135	325	43	306	16	365	135	138	24	297	113	340	103	556	1543
Apprch %	4	54.5	41.5		11.8	83.8	4.4		45.5	46.5	8.1		20.3	61.2	18.5		
Total %	0.8	11.5	8.7	21.1	2.8	19.8	1	23.7	8.7	8.9	1.6	19.2	7.3	22	6.7	36	

	Maple Avenue Southbound				Mesquite Street Westbound				Maple Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	14	19	33	5	**52**	1	**58**	**47**	15	**2**	**64**	18	50	11	79	**234**
07:30 AM	1	14	**27**	42	0	46	1	47	17	9	2	28	**20**	52	**30**	**102**	219
07:45 AM	2	17	17	36	4	51	1	56	16	10	2	28	20	**54**	19	93	213
08:00 AM	**3**	**27**	19	**49**	**9**	41	**3**	53	9	**19**	2	30	12	47	7	66	198
Total Volume	6	72	82	160	18	190	6	214	89	53	8	150	70	203	67	340	864
% App. Total	3.8	45	51.2		8.4	88.8	2.8		59.3	35.3	5.3		20.6	59.7	19.7		
PHF	.500	.667	.759	.816	.500	.913	.500	.922	.473	.697	1.00	.586	.875	.940	.558	.833	.923

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City of Hesperia
N/S: Maple Avenue
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Weather: Clear

File Name : 10_HES_Maple_Mes AM
Site Code : 10521628
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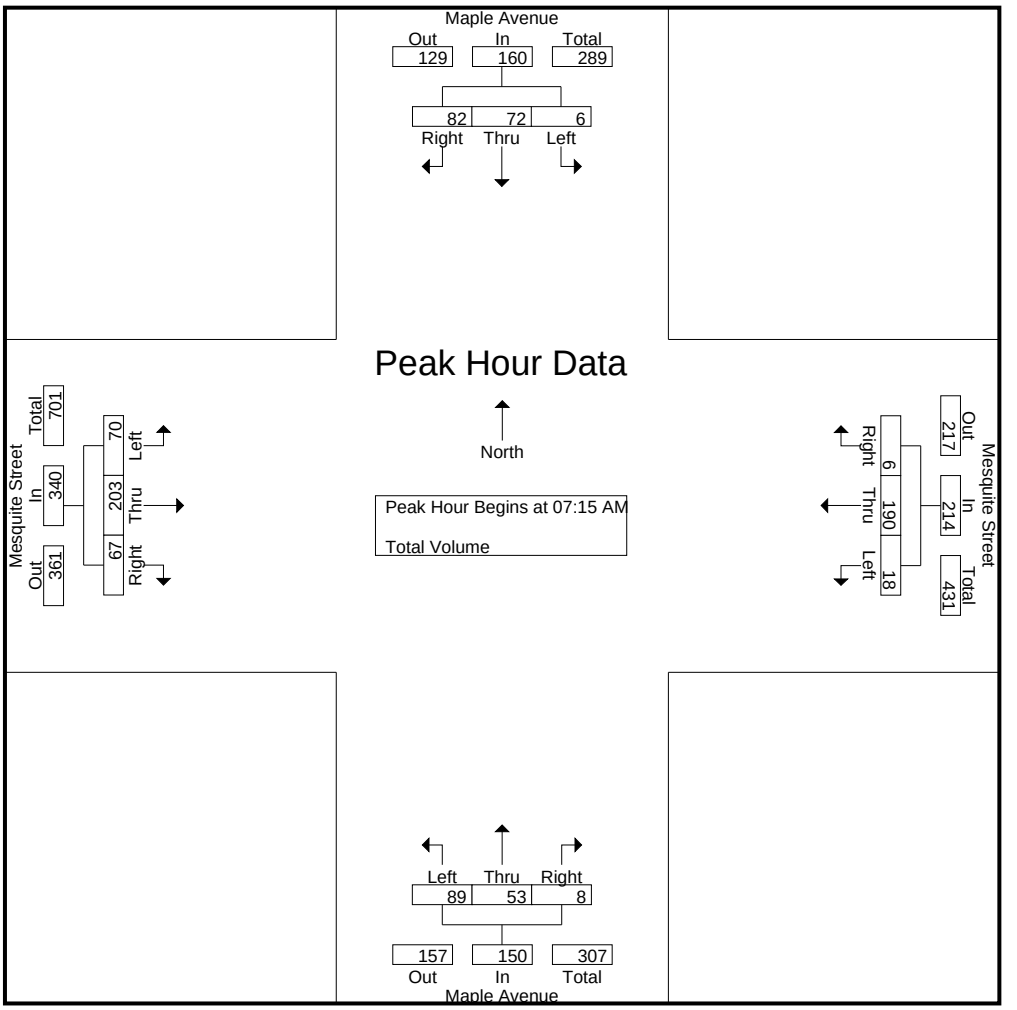

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:00 AM				07:15 AM			
+0 mins.	1	14	**27**	42	0	46	1	47	32	**19**	**3**	54	18	50	11	79
+15 mins.	2	17	17	36	4	**51**	1	56	**47**	15	2	**64**	**20**	52	**30**	**102**
+30 mins.	**3**	27	19	49	9	41	**3**	53	17	9	2	28	20	**54**	19	93
+45 mins.	3	**53**	24	**80**	**15**	50	3	**68**	16	10	2	28	12	47	7	66
Total Volume	9	111	87	207	28	188	8	224	112	53	9	174	70	203	67	340
% App. Total	4.3	53.6	42		12.5	83.9	3.6		64.4	30.5	5.2		20.6	59.7	19.7	
PHF	.750	.524	.806	.647	.467	.922	.667	.824	.596	.697	.750	.680	.875	.940	.558	.833

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City of Hesperia
N/S: Maple Avenue
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Weather: Clear

File Name : 10_HES_Maple_Mes PM
Site Code : 10521628
Start Date : 12/16/2021
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Groups Printed- Total Volume

	Maple Avenue Southbound				Mesquite Street Westbound				Maple Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	20	12	34	1	25	9	35	19	50	10	79	16	43	14	73	221
04:15 PM	6	32	18	56	5	29	0	34	8	24	6	38	14	29	12	55	183
04:30 PM	7	37	15	59	5	28	9	42	11	21	5	37	10	40	14	64	202
04:45 PM	6	36	4	46	9	31	3	43	7	28	3	38	12	17	13	42	169
Total	21	125	49	195	20	113	21	154	45	123	24	192	52	129	53	234	775
05:00 PM	3	20	8	31	5	28	2	35	10	27	9	46	7	22	12	41	153
05:15 PM	2	27	7	36	4	28	4	36	16	41	3	60	5	14	8	27	159
05:30 PM	4	24	12	40	3	34	2	39	11	24	4	39	5	20	12	37	155
05:45 PM	4	35	16	55	10	28	0	38	12	20	7	39	2	21	12	35	167
Total	13	106	43	162	22	118	8	148	49	112	23	184	19	77	44	140	634
Grand Total	34	231	92	357	42	231	29	302	94	235	47	376	71	206	97	374	1409
Apprch %	9.5	64.7	25.8		13.9	76.5	9.6		25	62.5	12.5		19	55.1	25.9		
Total %	2.4	16.4	6.5	25.3	3	16.4	2.1	21.4	6.7	16.7	3.3	26.7	5	14.6	6.9	26.5	

	Maple Avenue Southbound				Mesquite Street Westbound				Maple Avenue Northbound				Mesquite Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	20	12	34	1	25	**9**	35	**19**	**50**	**10**	**79**	**16**	**43**	**14**	**73**	**221**
04:15 PM	6	32	**18**	56	5	29	0	34	8	24	6	38	14	29	12	55	183
04:30 PM	**7**	**37**	15	**59**	5	28	9	42	11	21	5	37	10	40	14	64	202
04:45 PM	6	36	4	46	**9**	**31**	3	**43**	7	28	3	38	12	17	13	42	169
Total Volume	21	125	49	195	20	113	21	154	45	123	24	192	52	129	53	234	775
% App. Total	10.8	64.1	25.1		13	73.4	13.6		23.4	64.1	12.5		22.2	55.1	22.6		
PHF	.750	.845	.681	.826	.556	.911	.583	.895	.592	.615	.600	.608	.813	.750	.946	.801	.877

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City of Hesperia
N/S: Maple Avenue
E/W: Mesquite Street
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File Name : 10_HES_Maple_Mes PM
Site Code : 10521628
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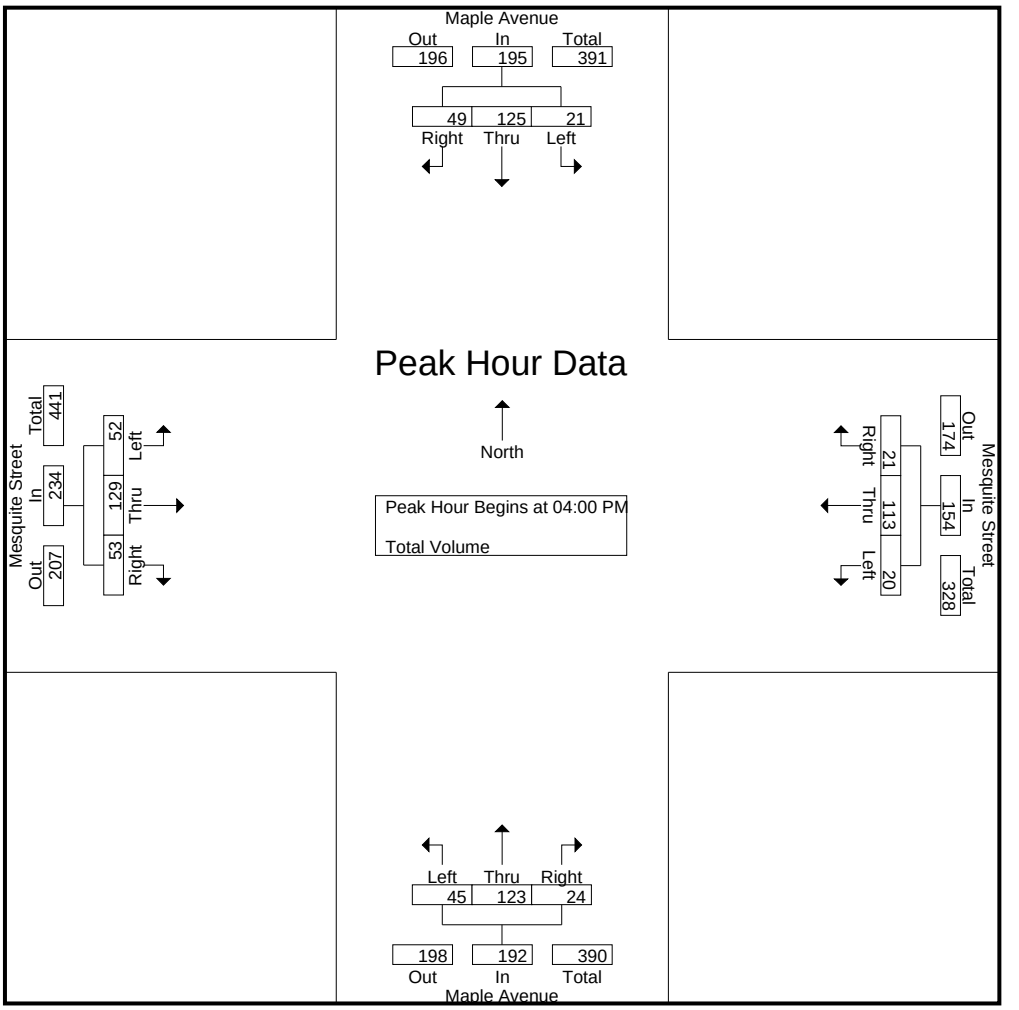

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	2	20	12	34	5	28	**9**	42	**19**	**50**	**10**	**79**	**16**	**43**	**14**	**73**
+15 mins.	6	32	**18**	56	**9**	**31**	3	**43**	8	24	6	38	14	29	12	55
+30 mins.	**7**	**37**	15	**59**	5	28	2	35	11	21	5	37	10	40	14	64
+45 mins.	6	36	4	46	4	28	4	36	7	28	3	38	12	17	13	42
Total Volume	21	125	49	195	23	115	18	156	45	123	24	192	52	129	53	234
% App. Total	10.8	64.1	25.1		14.7	73.7	11.5		23.4	64.1	12.5		22.2	55.1	22.6	
PHF	.750	.845	.681	.826	.639	.927	.500	.907	.592	.615	.600	.608	.813	.750	.946	.801

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City of Hesperia
N/S: Escondido Avenue
E/W: The Marketplace
Weather: Clear

File Name : 12_HES_Esco_Market AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Escondido Avenue Southbound				The Marketplace Westbound				Escondido Avenue Northbound				The Marketplace Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	17	145	1	163	8	0	6	14	0	148	5	153	0	0	0	0	330
07:15 AM	20	163	2	185	1	1	5	7	0	229	13	242	1	1	0	2	436
07:30 AM	35	145	1	181	6	1	17	24	0	271	18	289	1	0	0	1	495
07:45 AM	42	179	13	234	11	0	19	30	0	237	17	254	1	0	0	1	519
Total	114	632	17	763	26	2	47	75	0	885	53	938	3	1	0	4	1780
08:00 AM	47	151	24	222	15	0	14	29	0	177	20	197	0	0	0	0	448
08:15 AM	44	153	28	225	20	0	16	36	1	162	17	180	5	2	0	7	448
08:30 AM	47	78	23	148	9	1	20	30	3	185	18	206	11	1	0	12	396
08:45 AM	57	95	27	179	12	2	35	49	3	181	24	208	9	1	0	10	446
Total	195	477	102	774	56	3	85	144	7	705	79	791	25	4	0	29	1738
Grand Total	309	1109	119	1537	82	5	132	219	7	1590	132	1729	28	5	0	33	3518
Apprch %	20.1	72.2	7.7		37.4	2.3	60.3		0.4	92	7.6		84.8	15.2	0		
Total %	8.8	31.5	3.4	43.7	2.3	0.1	3.8	6.2	0.2	45.2	3.8	49.1	0.8	0.1	0	0.9	

	Escondido Avenue Southbound				The Marketplace Westbound				Escondido Avenue Northbound				The Marketplace Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	35	145	1	181	6	**1**	17	24	0	**271**	18	**289**	1	0	0	1	495
07:45 AM	42	**179**	13	**234**	11	0	**19**	30	0	237	17	254	1	0	0	1	**519**
08:00 AM	**47**	151	24	222	15	0	14	29	0	177	**20**	197	0	0	0	0	448
08:15 AM	44	153	**28**	225	**20**	0	16	**36**	**1**	162	17	180	**5**	**2**	0	**7**	448
Total Volume	168	628	66	862	52	1	66	119	1	847	72	920	7	2	0	9	1910
% App. Total	19.5	72.9	7.7		43.7	0.8	55.5		0.1	92.1	7.8		77.8	22.2	0		
PHF	.894	.877	.589	.921	.650	.250	.868	.826	.250	.781	.900	.796	.350	.250	.000	.321	.920

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File Name : 12_HES_Esco_Market AM
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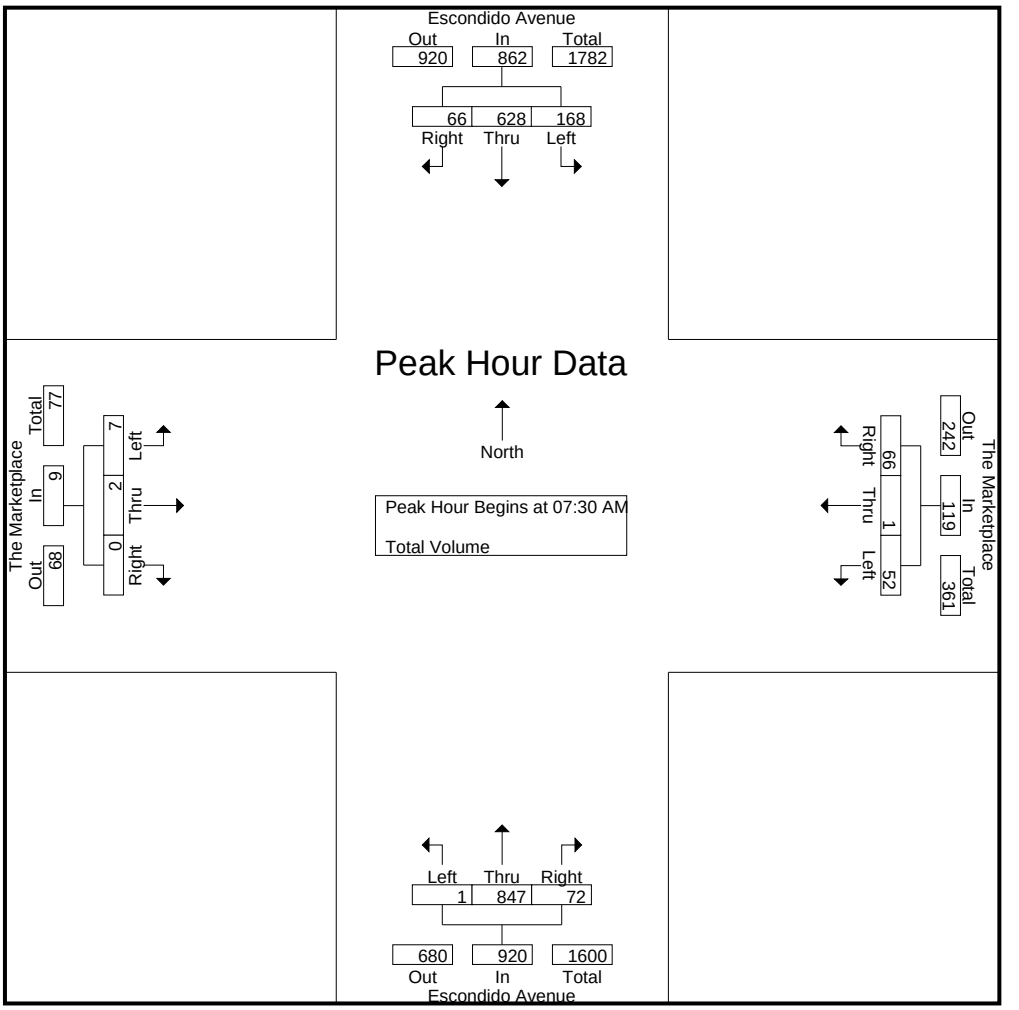

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				08:00 AM				07:15 AM				08:00 AM			
+0 mins.	35	145	1	181	15	0	14	29	0	229	13	242	0	0	0	0
+15 mins.	42	**179**	13	**234**	**20**	0	16	36	0	**271**	18	**289**	5	**2**	0	7
+30 mins.	**47**	151	24	222	9	1	20	30	0	237	17	254	**11**	1	0	**12**
+45 mins.	44	153	**28**	225	12	**2**	**35**	**49**	0	177	**20**	197	9	1	0	10
Total Volume	168	628	66	862	56	3	85	144	0	914	68	982	25	4	0	29
% App. Total	19.5	72.9	7.7		38.9	2.1	59		0	93.1	6.9		86.2	13.8	0	
PHF	.894	.877	.589	.921	.700	.375	.607	.735	.000	.843	.850	.849	.568	.500	.000	.604

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City of Hesperia
N/S: Escondido Avenue
E/W: The Marketplace
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File Name : 12_HES_Esco_Market PM
Site Code : 10521628
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Groups Printed- Total Volume

	Escondido Avenue Southbound				The Marketplace Westbound				Escondido Avenue Northbound				The Marketplace Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	69	151	15	235	33	0	37	70	2	162	40	204	15	5	2	22	531
04:15 PM	59	194	14	267	39	1	53	93	0	163	40	203	15	3	1	19	582
04:30 PM	77	215	7	299	30	1	38	69	2	147	32	181	18	3	2	23	572
04:45 PM	74	188	10	272	49	1	43	93	1	150	40	191	20	5	0	25	581
Total	279	748	46	1073	151	3	171	325	5	622	152	779	68	16	5	89	2266
05:00 PM	82	202	5	289	37	2	41	80	0	156	31	187	20	3	2	25	581
05:15 PM	74	224	5	303	32	0	33	65	0	137	39	176	10	3	0	13	557
05:30 PM	67	169	5	241	35	1	46	82	1	163	32	196	9	1	1	11	530
05:45 PM	75	188	3	266	41	0	42	83	2	135	32	169	5	2	1	8	526
Total	298	783	18	1099	145	3	162	310	3	591	134	728	44	9	4	57	2194
Grand Total	577	1531	64	2172	296	6	333	635	8	1213	286	1507	112	25	9	146	4460
Apprch %	26.6	70.5	2.9		46.6	0.9	52.4		0.5	80.5	19		76.7	17.1	6.2		
Total %	12.9	34.3	1.4	48.7	6.6	0.1	7.5	14.2	0.2	27.2	6.4	33.8	2.5	0.6	0.2	3.3	

	Escondido Avenue Southbound				The Marketplace Westbound				Escondido Avenue Northbound				The Marketplace Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	59	194	**14**	267	39	1	**53**	**93**	0	**163**	**40**	**203**	15	3	1	19	**582**
04:30 PM	77	**215**	7	**299**	30	1	38	69	**2**	147	32	181	18	3	**2**	23	572
04:45 PM	74	188	10	272	**49**	1	43	93	1	150	40	191	**20**	**5**	0	**25**	581
05:00 PM	**82**	202	5	289	37	**2**	41	80	0	156	31	187	20	3	2	25	581
Total Volume	292	799	36	1127	155	5	175	335	3	616	143	762	73	14	5	92	2316
% App. Total	25.9	70.9	3.2		46.3	1.5	52.2		0.4	80.8	18.8		79.3	15.2	5.4		
PHF	.890	.929	.643	.942	.791	.625	.825	.901	.375	.945	.894	.938	.913	.700	.625	.920	.995

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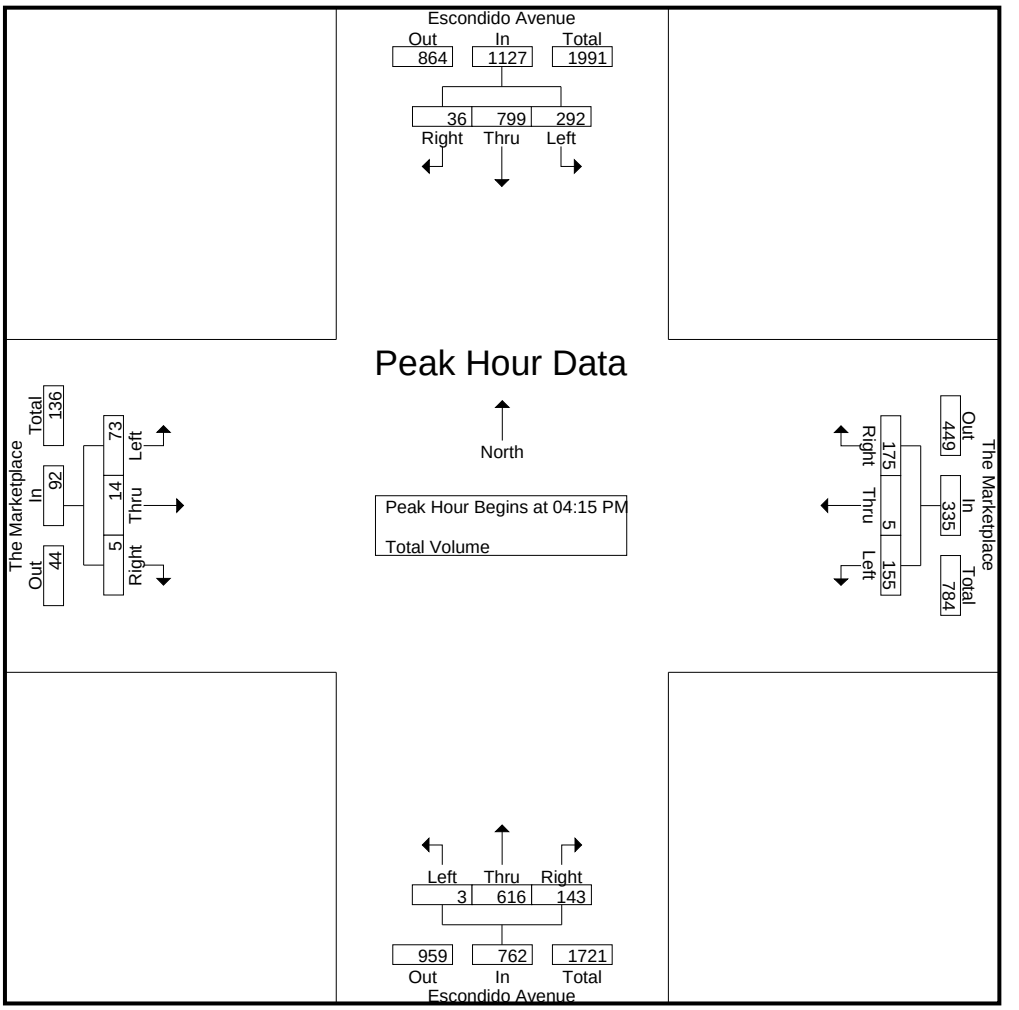
City of Hesperia
N/S: Escondido Avenue
E/W: The Marketplace
Weather: Clear

File Name : 12_HES_Esco_Market PM
Site Code : 10521628
Start Date : 11/2/2021



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:00 PM				04:15 PM			
+0 mins.	77	215	7	299	39	1	**53**	**93**	**2**	162	**40**	**204**	15	3	1	19
+15 mins.	74	188	**10**	272	30	1	38	69	0	**163**	40	203	18	3	**2**	23
+30 mins.	**82**	202	5	289	**49**	1	43	93	2	147	32	181	**20**	**5**	0	**25**
+45 mins.	74	**224**	5	**303**	37	**2**	41	80	1	150	40	191	20	3	2	25
Total Volume	307	829	27	1163	155	5	175	335	5	622	152	779	73	14	5	92
% App. Total	26.4	71.3	2.3		46.3	1.5	52.2		0.6	79.8	19.5		79.3	15.2	5.4	
PHF	.936	.925	.675	.960	.791	.625	.825	.901	.625	.954	.950	.955	.913	.700	.625	.920

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City of Hesperia
N/S: Escondido Avenue
E/W: Main Street
Weather: Clear

File Name : 13_HES_Esco_Main AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Escondido Avenue Southbound				Main Street Westbound				Escondido Avenue Northbound				Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	1	2	59	173	0	232	108	0	41	149	0	145	101	246	629
07:15 AM	0	2	6	8	81	150	2	233	142	6	82	230	1	128	92	221	692
07:30 AM	1	1	50	52	104	190	1	295	121	49	108	278	0	230	78	308	933
07:45 AM	1	1	16	18	99	231	0	330	129	20	97	246	3	232	131	366	960
Total	3	4	73	80	343	744	3	1090	500	75	328	903	4	735	402	1141	3214
08:00 AM	1	2	3	6	111	188	3	302	114	4	84	202	3	163	106	272	782
08:15 AM	1	2	5	8	80	216	1	297	120	3	68	191	1	205	128	334	830
08:30 AM	1	2	8	11	79	233	4	316	125	10	60	195	11	198	79	288	810
08:45 AM	6	0	13	19	68	218	0	286	173	18	67	258	16	194	92	302	865
Total	9	6	29	44	338	855	8	1201	532	35	279	846	31	760	405	1196	3287
Grand Total	12	10	102	124	681	1599	11	2291	1032	110	607	1749	35	1495	807	2337	6501
Apprch %	9.7	8.1	82.3		29.7	69.8	0.5		59	6.3	34.7		1.5	64	34.5		
Total %	0.2	0.2	1.6	1.9	10.5	24.6	0.2	35.2	15.9	1.7	9.3	26.9	0.5	23	12.4	35.9	

	Escondido Avenue Southbound				Main Street Westbound				Escondido Avenue Northbound				Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	1	**50**	**52**	104	190	1	295	121	**49**	**108**	**278**	0	230	78	308	933
07:45 AM	1	1	16	18	99	**231**	0	**330**	**129**	20	97	246	**3**	**232**	**131**	**366**	**960**
08:00 AM	1	**2**	3	6	**111**	188	**3**	302	114	4	84	202	3	163	106	272	782
08:15 AM	1	2	5	8	80	216	1	297	120	3	68	191	1	205	128	334	830
Total Volume	4	6	74	84	394	825	5	1224	484	76	357	917	7	830	443	1280	3505
% App. Total	4.8	7.1	88.1		32.2	67.4	0.4		52.8	8.3	38.9		0.5	64.8	34.6		
PHF	1.00	.750	.370	.404	.887	.893	.417	.927	.938	.388	.826	.825	.583	.894	.845	.874	.913

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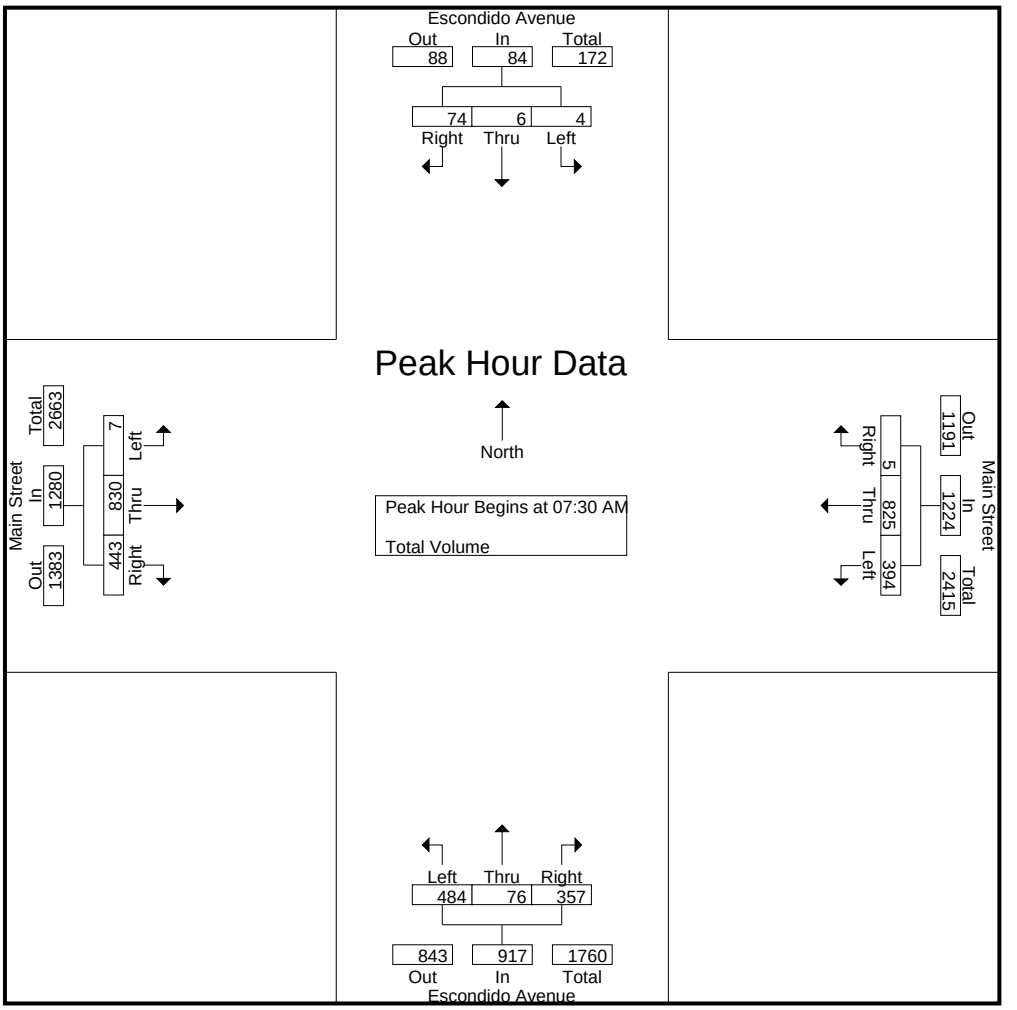
City of Hesperia
N/S: Escondido Avenue
E/W: Main Street
Weather: Clear

File Name : 13_HES_Esco_Main AM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:15 AM				07:30 AM			
+0 mins.	0	**2**	6	8	99	231	0	**330**	**142**	6	82	230	0	230	78	308
+15 mins.	**1**	1	**50**	**52**	**111**	188	3	302	121	**49**	**108**	**278**	**3**	**232**	**131**	**366**
+30 mins.	1	1	16	18	80	216	1	297	129	20	97	246	3	163	106	272
+45 mins.	1	2	3	6	79	**233**	**4**	316	114	4	84	202	1	205	128	334
Total Volume	3	6	75	84	369	868	8	1245	506	79	371	956	7	830	443	1280
% App. Total	3.6	7.1	89.3		29.6	69.7	0.6		52.9	8.3	38.8		0.5	64.8	34.6	
PHF	.750	.750	.375	.404	.831	.931	.500	.943	.891	.403	.859	.860	.583	.894	.845	.874

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City of Hesperia
N/S: Escondido Avenue
E/W: Main Street
Weather: Clear

File Name : 13_HES_Esco_Main PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 1

Groups Printed- Total Volume

	Escondido Avenue Southbound				Main Street Westbound				Escondido Avenue Northbound				Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	12	9	52	73	99	259	3	361	80	55	74	209	15	298	132	445	1088
04:15 PM	6	10	79	95	104	237	2	343	101	90	82	273	20	293	140	453	1164
04:30 PM	14	15	32	61	87	225	1	313	134	44	71	249	11	311	150	472	1095
04:45 PM	12	14	54	80	72	269	4	345	96	44	66	206	13	350	155	518	1149
Total	44	48	217	309	362	990	10	1362	411	233	293	937	59	1252	577	1888	4496
05:00 PM	13	15	60	88	110	216	3	329	117	63	65	245	14	308	143	465	1127
05:15 PM	9	11	43	63	101	279	4	384	106	44	71	221	10	318	168	496	1164
05:30 PM	9	12	46	67	81	227	1	309	118	43	81	242	14	340	133	487	1105
05:45 PM	4	9	24	37	101	238	2	341	112	22	80	214	19	313	159	491	1083
Total	35	47	173	255	393	960	10	1363	453	172	297	922	57	1279	603	1939	4479
Grand Total	79	95	390	564	755	1950	20	2725	864	405	590	1859	116	2531	1180	3827	8975
Apprch %	14	16.8	69.1		27.7	71.6	0.7		46.5	21.8	31.7		3	66.1	30.8		
Total %	0.9	1.1	4.3	6.3	8.4	21.7	0.2	30.4	9.6	4.5	6.6	20.7	1.3	28.2	13.1	42.6	

	Escondido Avenue Southbound				Main Street Westbound				Escondido Avenue Northbound				Main Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	12	14	54	80	72	269	**4**	345	96	44	66	206	13	**350**	155	**518**	1149
05:00 PM	**13**	**15**	**60**	**88**	**110**	216	3	329	117	**63**	65	**245**	**14**	308	143	465	1127
05:15 PM	9	11	43	63	101	**279**	4	**384**	106	44	71	221	10	318	**168**	496	**1164**
05:30 PM	9	12	46	67	81	227	1	309	**118**	43	**81**	242	14	340	133	487	1105
Total Volume	43	52	203	298	364	991	12	1367	437	194	283	914	51	1316	599	1966	4545
% App. Total	14.4	17.4	68.1		26.6	72.5	0.9		47.8	21.2	31		2.6	66.9	30.5		
PHF	.827	.867	.846	.847	.827	.888	.750	.890	.926	.770	.873	.933	.911	.940	.891	.949	.976

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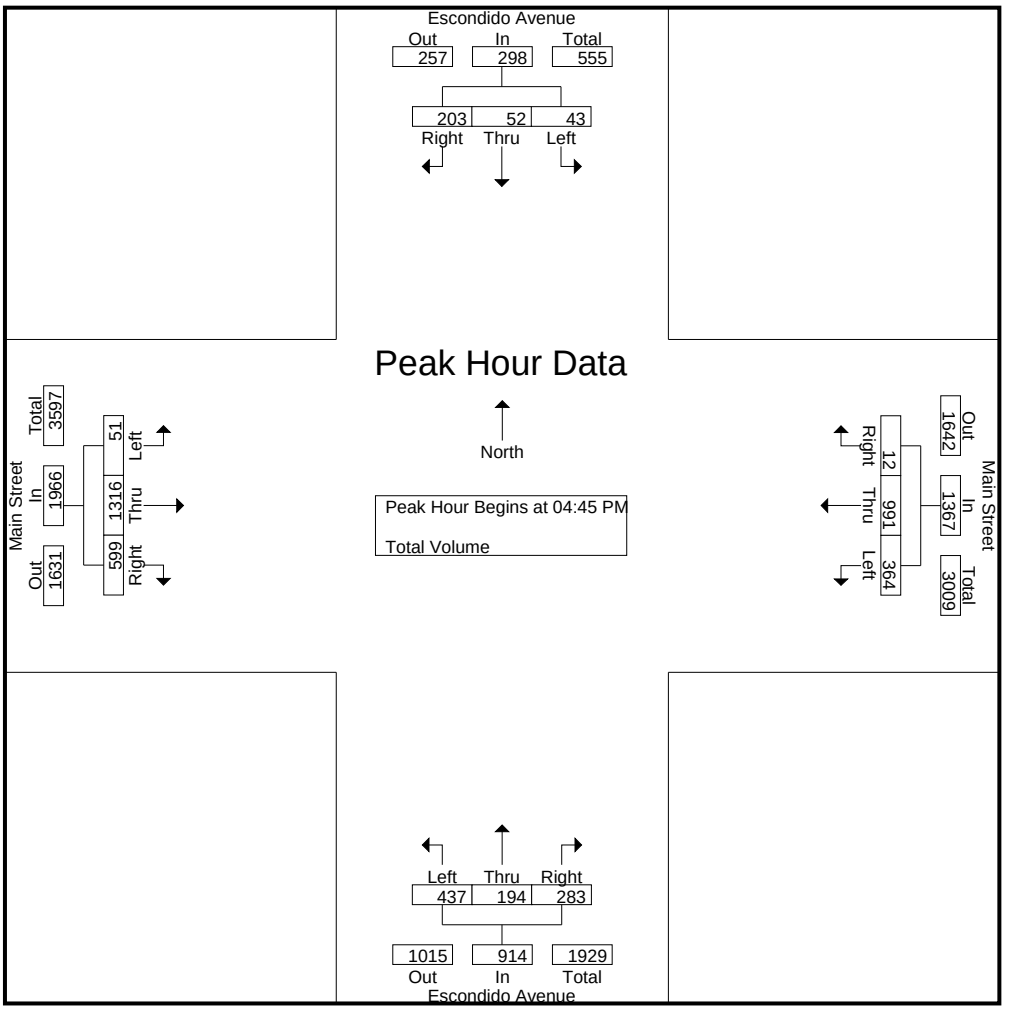
City of Hesperia
N/S: Escondido Avenue
E/W: Main Street
Weather: Clear

File Name : 13_HES_Esco_Main PM
Site Code : 10521628
Start Date : 11/2/2021
Page No : 2

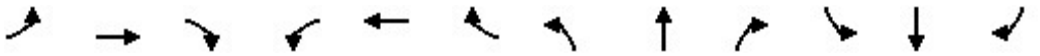


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	6	10	**79**	**95**	87	225	1	313	101	**90**	**82**	**273**	13	**350**	155	**518**
+15 mins.	**14**	**15**	32	61	72	269	**4**	345	**134**	44	71	249	**14**	308	143	465
+30 mins.	12	14	54	80	**110**	216	3	329	96	44	66	206	10	318	**168**	496
+45 mins.	13	15	60	88	101	**279**	4	**384**	117	63	65	245	14	340	133	487
Total Volume	45	54	225	324	370	989	12	1371	448	241	284	973	51	1316	599	1966
% App. Total	13.9	16.7	69.4		27	72.1	0.9		46	24.8	29.2		2.6	66.9	30.5	
PHF	.804	.900	.712	.853	.841	.886	.750	.893	.836	.669	.866	.891	.911	.940	.891	.949

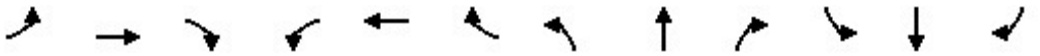
Appendix C

Existing Conditions Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.979			0.969				
Flt Protected		0.994			0.961						0.997	
Satd. Flow (prot)	0	1651	0	0	1660	0	0	1710	0	0	1759	0
Flt Permitted		0.994			0.961						0.997	
Satd. Flow (perm)	0	1651	0	0	1660	0	0	1710	0	0	1759	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	274	8	53	0	347	101	28	454	1
Future Volume (vph)	2	6	6	274	8	53	0	347	101	28	454	1
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)	2	7	7	311	9	60	0	394	115	32	516	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	380	0	0	509	0	0	549	0

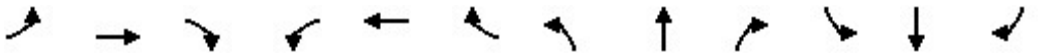
Intersection Summary

Intersection	
Intersection Delay, s/veh	47
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	274	8	53	0	347	101	28	454	1
Future Vol, veh/h	2	6	6	274	8	53	0	347	101	28	454	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	311	9	60	0	394	115	32	516	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

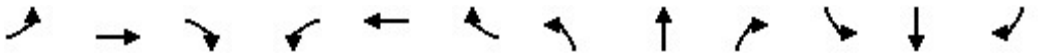
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.1	29.2	45.2	62
HCM LOS	B	D	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	82%	6%
Vol Thru, %	77%	43%	2%	94%
Vol Right, %	23%	43%	16%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	448	14	335	483
LT Vol	0	2	274	28
Through Vol	347	6	8	454
RT Vol	101	6	53	1
Lane Flow Rate	509	16	381	549
Geometry Grp	1	1	1	1
Degree of Util (X)	0.912	0.039	0.755	0.992
Departure Headway (Hd)	6.448	8.714	7.137	6.504
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	560	413	506	554
Service Time	4.53	6.714	5.212	4.583
HCM Lane V/C Ratio	0.909	0.039	0.753	0.991
HCM Control Delay	45.2	12.1	29.2	62
HCM Lane LOS	E	B	D	F
HCM 95th-tile Q	11	0.1	6.5	14



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	134	0	2	325	1	4	2	6	1	1	3
Future Volume (vph)	1	134	0	2	325	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	168	0	3	406	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	0	0	410	0	0	16	0	0	6	0

Intersection Summary

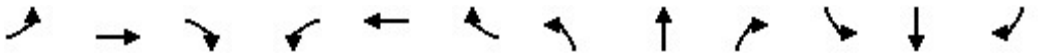
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	134	0	2	325	1	4	2	6	1	1	3
Future Vol, veh/h	1	134	0	2	325	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	168	0	3	406	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	168	0	0	585	583	168	589	583	407
Stage 1	-	-	-	-	-	-	170	170	-	413	413	-
Stage 2	-	-	-	-	-	-	415	413	-	176	170	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1152	-	-	1410	-	-	422	424	876	420	424	644
Stage 1	-	-	-	-	-	-	832	758	-	616	594	-
Stage 2	-	-	-	-	-	-	615	594	-	826	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1152	-	-	1410	-	-	417	422	876	413	422	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	417	422	-	413	422	-
Stage 1	-	-	-	-	-	-	831	757	-	615	592	-
Stage 2	-	-	-	-	-	-	608	592	-	815	757	-

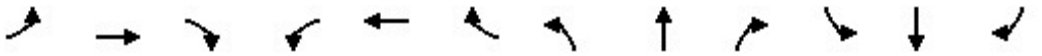
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.5	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	567	1152	-	-	1410	-	-	529
HCM Lane V/C Ratio	0.026	0.001	-	-	0.002	-	-	0.012
HCM Control Delay (s)	11.5	8.1	0	-	7.6	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.998			0.938				0.850		0.989	0.850
Flt Protected		0.994			0.999			0.950			0.956	
Satd. Flow (prot)	0	1751	0	0	1654	0	0	1676	1500	0	1585	1425
Flt Permitted		0.994			0.999			0.950			0.956	
Satd. Flow (perm)	0	1751	0	0	1654	0	0	1676	1500	0	1585	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	132	2	5	198	174	2	0	3	102	1	87
Future Volume (vph)	17	132	2	5	198	174	2	0	3	102	1	87
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	20	157	2	6	236	207	2	0	4	121	1	104
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	179	0	0	449	0	0	2	4	0	132	94

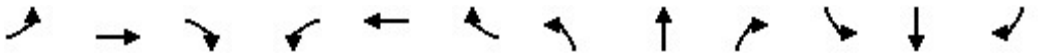
Intersection Summary

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	132	2	5	198	174	2	0	3	102	1	87
Future Vol, veh/h	17	132	2	5	198	174	2	0	3	102	1	87
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	157	2	6	236	207	2	0	4	121	1	104
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

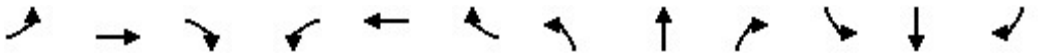
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.9	13.3	9	10.3
HCM LOS	A	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	11%	1%	91%	0%
Vol Thru, %	0%	0%	87%	53%	1%	0%
Vol Right, %	0%	100%	1%	46%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	151	377	112	78
LT Vol	2	0	17	5	102	0
Through Vol	0	0	132	198	1	0
RT Vol	0	3	2	174	9	78
Lane Flow Rate	2	4	180	449	133	93
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.254	0.563	0.239	0.139
Departure Headway (Hd)	6.978	5.753	5.093	4.518	6.478	5.358
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	515	625	696	790	557	673
Service Time	4.685	3.46	3.191	2.59	4.178	3.058
HCM Lane V/C Ratio	0.004	0.006	0.259	0.568	0.239	0.138
HCM Control Delay	9.7	8.5	9.9	13.3	11.2	8.9
HCM Lane LOS	A	A	A	B	B	A
HCM 95th-tile Q	0	0	1	3.6	0.9	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.944			0.983			0.979	
Flt Protected		0.991			0.999			0.973			0.961	
Satd. Flow (prot)	0	1747	0	0	1664	0	0	1688	0	0	1660	0
Flt Permitted		0.991			0.999			0.973			0.961	
Satd. Flow (perm)	0	1747	0	0	1664	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	42	186	2	5	204	148	15	8	3	113	4	22
Future Volume (vph)	42	186	2	5	204	148	15	8	3	113	4	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	50	221	2	6	243	176	18	10	4	135	5	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	273	0	0	425	0	0	32	0	0	166	0

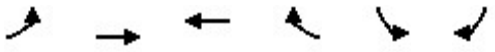
Intersection Summary

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	186	2	5	204	148	15	8	3	113	4	22
Future Vol, veh/h	42	186	2	5	204	148	15	8	3	113	4	22
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	221	2	6	243	176	18	10	4	135	5	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

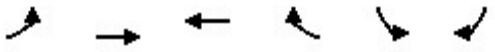
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	13.1	9.4	10.8
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	18%	1%	81%
Vol Thru, %	31%	81%	57%	3%
Vol Right, %	12%	1%	41%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	230	357	139
LT Vol	15	42	5	113
Through Vol	8	186	204	4
RT Vol	3	2	148	22
Lane Flow Rate	31	274	425	165
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.389	0.541	0.264
Departure Headway (Hd)	6.016	5.108	4.58	5.74
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	596	709	778	627
Service Time	4.039	3.108	2.679	3.756
HCM Lane V/C Ratio	0.052	0.386	0.546	0.263
HCM Control Delay	9.4	11.3	13.1	10.8
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.2	1.8	3.3	1.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	299	357	0	1	0
Future Volume (vph)	0	299	357	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	325	388	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	325	388	0	1	0

Intersection Summary

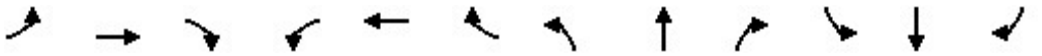
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	299	357	0	1	0
Future Vol, veh/h	0	299	357	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	325	388	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	388	0	-	0	713	388
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1170	-	-	-	398	660
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	732	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1170	-	-	-	398	660
Mov Cap-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	732	-

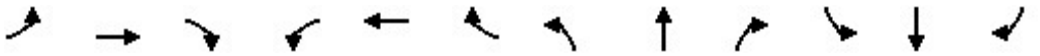
Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1170	-	-	-	398
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	295	3	0	348	2	4	0	1	1	0	2
Future Volume (vph)	3	295	3	0	348	2	4	0	1	1	0	2
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)	3	321	3	0	378	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	327	0	0	380	0	0	5	0	0	3	0

Intersection Summary

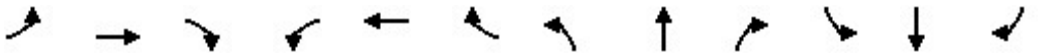
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	295	3	0	348	2	4	0	1	1	0	2
Future Vol, veh/h	3	295	3	0	348	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	321	3	0	378	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	380	0	0	324	0	0	709	709	323	708	709	379
Stage 1	-	-	-	-	-	-	329	329	-	379	379	-
Stage 2	-	-	-	-	-	-	380	380	-	329	330	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1178	-	-	1236	-	-	349	359	718	350	359	668
Stage 1	-	-	-	-	-	-	684	646	-	643	615	-
Stage 2	-	-	-	-	-	-	642	614	-	684	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1178	-	-	1236	-	-	347	358	718	349	358	668
Mov Cap-2 Maneuver	-	-	-	-	-	-	347	358	-	349	358	-
Stage 1	-	-	-	-	-	-	682	644	-	641	615	-
Stage 2	-	-	-	-	-	-	640	614	-	681	644	-

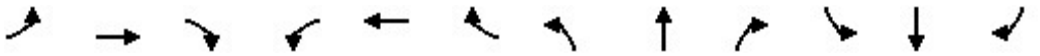
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	14.4	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	387	1178	-	-	1236	-	-	512
HCM Lane V/C Ratio	0.014	0.003	-	-	-	-	-	0.006
HCM Control Delay (s)	14.4	8.1	0	-	0	-	-	12.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	289	5	3	344	0	4	0	2	2	0	1
Future Volume (vph)	1	289	5	3	344	0	4	0	2	2	0	1
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)	1	314	5	3	374	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	0	0	377	0	0	6	0	0	3	0

Intersection Summary

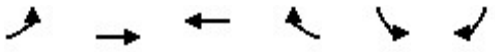
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	289	5	3	344	0	4	0	2	2	0	1
Future Vol, veh/h	1	289	5	3	344	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	314	5	3	374	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	374	0	0	319	0	0	700	699	317	700	701	374
Stage 1	-	-	-	-	-	-	319	319	-	380	380	-
Stage 2	-	-	-	-	-	-	381	380	-	320	321	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1184	-	-	1241	-	-	354	364	724	354	363	672
Stage 1	-	-	-	-	-	-	693	653	-	642	614	-
Stage 2	-	-	-	-	-	-	641	614	-	692	652	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1184	-	-	1241	-	-	352	363	724	352	362	672
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	363	-	352	362	-
Stage 1	-	-	-	-	-	-	692	652	-	641	612	-
Stage 2	-	-	-	-	-	-	638	612	-	689	651	-

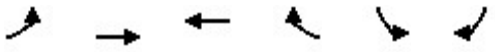
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	13.6	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	425	1184	-	-	1241	-	-	418
HCM Lane V/C Ratio	0.015	0.001	-	-	0.003	-	-	0.008
HCM Control Delay (s)	13.6	8	0	-	7.9	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1526	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1526	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	291	344	1	0	1
Future Volume (vph)	1	291	344	1	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	1	313	370	1	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	314	371	0	1	0

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	291	344	1	0	1
Future Vol, veh/h	1	291	344	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	313	370	1	0	1

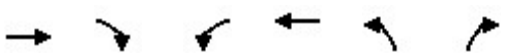
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	371	0	-	0	686	371
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1188	-	-	-	413	675
Stage 1	-	-	-	-	698	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1188	-	-	-	413	675
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1188	-	-	-	675
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	1765	0	0	1765	1526	0
Flt Permitted						
Satd. Flow (perm)	1765	0	0	1765	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	293	0	0	346	0	1
Future Volume (vph)	293	0	0	346	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	315	0	0	372	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	372	1	0

Intersection Summary

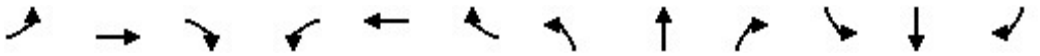
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	293	0	0	346	0	1
Future Vol, veh/h	293	0	0	346	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	315	0	0	372	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	315	0	687	315
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	372	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1245	-	413	725
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1245	-	413	725
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	697	-

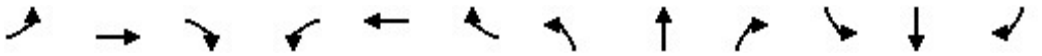
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	725	-	-	1245	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.996			0.993			0.931	
Flt Protected		0.990			0.996			0.971			0.998	
Satd. Flow (prot)	0	1794	0	0	1848	0	0	1796	0	0	1731	0
Flt Permitted		0.990			0.996			0.971			0.998	
Satd. Flow (perm)	0	1794	0	0	1848	0	0	1796	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	70	203	67	18	190	6	89	53	8	6	72	82
Future Volume (vph)	70	203	67	18	190	6	89	53	8	6	72	82
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)	76	221	73	20	207	7	97	58	9	7	78	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	370	0	0	234	0	0	164	0	0	174	0

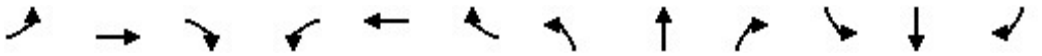
Intersection Summary

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	203	67	18	190	6	89	53	8	6	72	82
Future Vol, veh/h	70	203	67	18	190	6	89	53	8	6	72	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	221	73	20	207	7	97	58	9	7	78	89
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

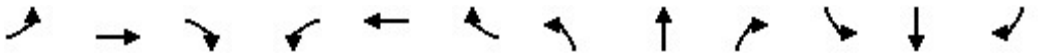
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.2	11.6	11.2	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	21%	8%	4%
Vol Thru, %	35%	60%	89%	45%
Vol Right, %	5%	20%	3%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	340	214	160
LT Vol	89	70	18	6
Through Vol	53	203	190	72
RT Vol	8	67	6	82
Lane Flow Rate	163	370	233	174
Geometry Grp	1	1	1	1
Degree of Util (X)	0.27	0.536	0.355	0.269
Departure Headway (Hd)	5.956	5.219	5.495	5.563
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	602	687	651	643
Service Time	4.016	3.266	3.551	3.623
HCM Lane V/C Ratio	0.271	0.539	0.358	0.271
HCM Control Delay	11.2	14.2	11.6	10.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	3.2	1.6	1.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.709			0.757			0.950			0.950		
Satd. Flow (perm)	1182	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					72				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



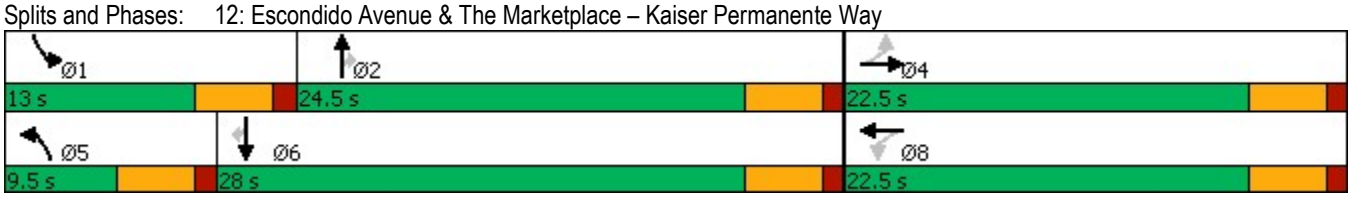
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	52	1	66	1	847	72	168	628	66
Future Volume (vph)	7	2	0	52	1	66	1	847	72	168	628	66
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	57	1	72	1	921	78	183	683	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	57	73	0	1	921	78	183	683	72

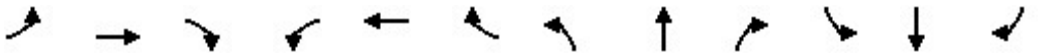
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	52	1	1	847	72	168	628	66
Future Volume (vph)	7	2	52	1	1	847	72	168	628	66
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.7	7.7	7.7	7.7	5.0	21.3	21.3	8.5	33.5	33.5
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.29	0.24	0.01	0.63	0.11	0.67	0.30	0.07
Control Delay	17.9	17.0	22.3	8.1	21.0	14.4	2.1	35.4	5.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.3	8.1	21.0	14.4	2.1	35.4	5.7	1.3
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.3		13.5			11.2	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 48.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 56.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

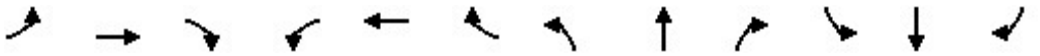




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	52	1	66	1	847	72	168	628	66
Future Volume (veh/h)	7	2	0	52	1	66	1	847	72	168	628	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	57	1	72	1	921	78	183	683	72
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	261	180	0	325	2	151	4	1342	599	227	1817	811
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.40	0.40	0.14	0.54	0.54
Sat Flow, veh/h	1253	1772	0	1336	21	1484	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	57	0	73	1	921	78	183	683	72
Grp Sat Flow(s),veh/h/ln	1253	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.5	0.0	1.7	0.0	8.6	1.2	4.2	4.4	0.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.6	0.0	1.7	0.0	8.6	1.2	4.2	4.4	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	180	0	325	0	153	4	1342	599	227	1817	811
V/C Ratio(X)	0.03	0.01	0.00	0.18	0.00	0.48	0.24	0.69	0.13	0.81	0.38	0.09
Avail Cap(c_a), veh/h	730	843	0	825	0	716	211	1781	794	358	2092	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	15.3	0.0	16.0	0.0	16.0	18.8	9.4	7.2	15.7	5.0	4.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	2.3	26.6	0.7	0.1	7.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.4	0.0	0.6	0.0	2.3	0.3	1.7	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	15.3	0.0	16.2	0.0	18.3	45.5	10.1	7.3	22.8	5.2	4.3
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			130			1000			938	
Approach Delay, s/veh		16.7			17.4			9.9			8.5	
Approach LOS		B			B			A			A	

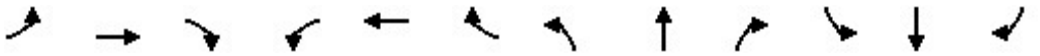
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	19.6		8.4	4.6	24.9		8.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.2	10.6		4.0	2.0	6.4		3.7				
Green Ext Time (p_c), s	0.1	4.5		0.0	0.0	4.6		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		9.8
HCM 6th LOS		A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.862	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1521	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			487			182			213		81	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



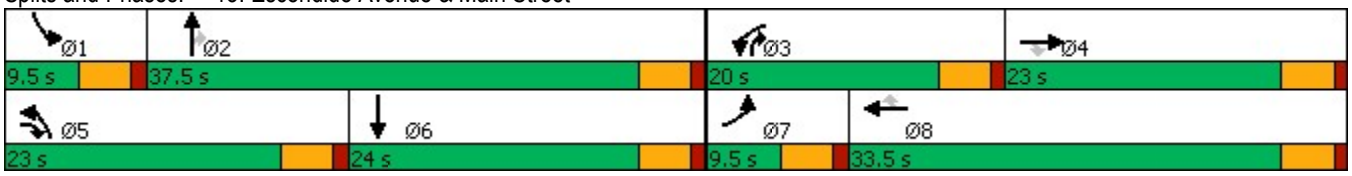
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	830	443	394	825	5	484	76	357	4	6	74
Future Volume (vph)	7	830	443	394	825	5	484	76	357	4	6	74
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	912	487	433	907	5	532	84	392	4	7	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	912	487	433	907	5	532	84	392	4	88	0

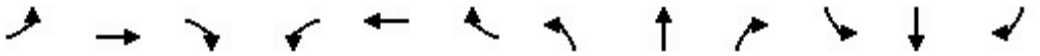
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	830	443	394	825	5	484	76	357	4	6
Future Volume (vph)	7	830	443	394	825	5	484	76	357	4	6
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.0	23.0	20.0	33.5	33.5	23.0	37.5	20.0	9.5	24.0
Total Split (%)	10.6%	25.6%	25.6%	22.2%	37.2%	37.2%	25.6%	41.7%	22.2%	10.6%	26.7%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.4	40.7	15.0	36.1	36.1	17.8	27.3	46.7	5.0	6.8
Actuated g/C Ratio	0.07	0.24	0.54	0.20	0.48	0.48	0.23	0.36	0.61	0.07	0.09
v/c Ratio	0.08	0.78	0.47	0.76	0.57	0.01	0.79	0.13	0.39	0.04	0.42
Control Delay	36.7	33.1	2.8	39.5	17.3	0.0	37.6	18.5	4.8	35.8	16.3
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	36.7	33.1	2.8	39.5	17.3	0.0	37.6	18.5	4.8	35.8	16.3
LOS	D	C	A	D	B	A	D	B	A	D	B
Approach Delay		22.6			24.4			23.2			17.1
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





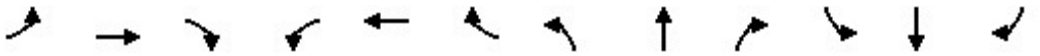
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	830	443	394	825	5	484	76	357	4	6	74
Future Volume (veh/h)	7	830	443	394	825	5	484	76	357	4	6	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	912	487	433	907	5	532	84	392	4	7	81
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1265	717	523	1450	647	628	530	719	9	11	124
Arrive On Green	0.01	0.26	0.26	0.18	0.43	0.43	0.22	0.30	0.30	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	121	1399
Grp Volume(v), veh/h	8	912	487	433	907	5	532	84	392	4	0	88
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1520
Q Serve(g_s), s	0.4	12.1	17.7	10.1	14.8	0.1	12.4	2.5	13.0	0.2	0.0	4.0
Cycle Q Clear(g_c), s	0.4	12.1	17.7	10.1	14.8	0.1	12.4	2.5	13.0	0.2	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	16	1265	717	523	1450	647	628	530	719	9	0	135
V/C Ratio(X)	0.49	0.72	0.68	0.83	0.63	0.01	0.85	0.16	0.55	0.47	0.00	0.65
Avail Cap(c_a), veh/h	113	1265	717	638	1450	647	761	827	970	113	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(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.8	23.8	14.3	28.0	15.7	11.5	26.6	18.2	13.0	35.1	0.0	31.2
Incr Delay (d2), s/veh	20.8	2.0	2.6	7.5	0.9	0.0	7.6	0.1	0.6	35.3	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.6	5.8	3.9	5.3	0.0	4.7	1.0	4.0	0.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	25.8	16.9	35.5	16.5	11.5	34.2	18.4	13.7	70.3	0.0	36.4
LnGrp LOS	E	C	B	D	B	B	C	B	B	E	A	D
Approach Vol, veh/h		1407			1345			1008			92	
Approach Delay, s/veh		22.9			22.6			24.9			37.9	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	25.7	17.2	23.0	19.8	10.8	5.2	35.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	33.0	15.5	18.5	18.5	19.5	5.0	29.0
Max Q Clear Time (g_c+I1), s	2.2	15.0	12.1	19.7	14.4	6.0	2.4	16.8
Green Ext Time (p_c), s	0.0	1.8	0.6	0.0	0.8	0.3	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

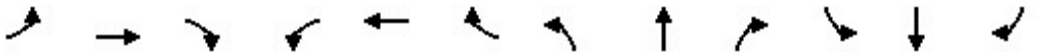
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.936			0.975			0.999	
Flt Protected		0.985			0.975						0.991	
Satd. Flow (prot)	0	1702	0	0	1610	0	0	1721	0	0	1747	0
Flt Permitted		0.985			0.975						0.991	
Satd. Flow (perm)	0	1702	0	0	1610	0	0	1721	0	0	1747	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	59	2	55	3	393	89	62	266	3
Future Volume (vph)	3	6	2	59	2	55	3	393	89	62	266	3
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)	4	7	2	71	2	66	4	473	107	75	320	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	139	0	0	584	0	0	399	0

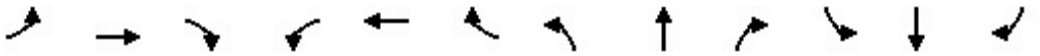
Intersection Summary

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	59	2	55	3	393	89	62	266	3
Future Vol, veh/h	3	6	2	59	2	55	3	393	89	62	266	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	71	2	66	4	473	107	75	320	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

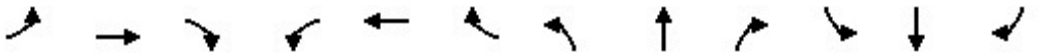
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	11.1	23.8	15.1
HCM LOS	A	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	51%	19%
Vol Thru, %	81%	55%	2%	80%
Vol Right, %	18%	18%	47%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	485	11	116	331
LT Vol	3	3	59	62
Through Vol	393	6	2	266
RT Vol	89	2	55	3
Lane Flow Rate	584	13	140	399
Geometry Grp	1	1	1	1
Degree of Util (X)	0.792	0.024	0.237	0.576
Departure Headway (Hd)	4.88	6.619	6.109	5.196
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	748	538	587	694
Service Time	2.88	4.688	4.159	3.228
HCM Lane V/C Ratio	0.781	0.024	0.239	0.575
HCM Control Delay	23.8	9.9	11.1	15.1
HCM Lane LOS	C	A	B	C
HCM 95th-tile Q	8	0.1	0.9	3.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	167	1	4	125	0	1	0	2	1	0	0
Future Volume (vph)	0	167	1	4	125	0	1	0	2	1	0	0
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)	0	182	1	4	136	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	140	0	0	3	0	0	1	0

Intersection Summary

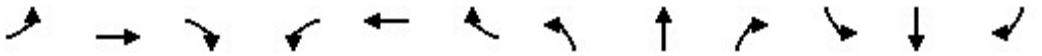
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	167	1	4	125	0	1	0	2	1	0	0
Future Vol, veh/h	0	167	1	4	125	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	182	1	4	136	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	183	0	0	327	327	183	328	327	136
Stage 1	-	-	-	-	-	-	183	183	-	144	144	-
Stage 2	-	-	-	-	-	-	144	144	-	184	183	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1392	-	-	626	591	859	625	591	913
Stage 1	-	-	-	-	-	-	819	748	-	859	778	-
Stage 2	-	-	-	-	-	-	859	778	-	818	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1448	-	-	1392	-	-	625	589	859	622	589	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	589	-	622	589	-
Stage 1	-	-	-	-	-	-	819	748	-	859	776	-
Stage 2	-	-	-	-	-	-	856	776	-	816	748	-

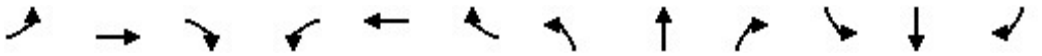
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	9.7	10.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	764	1448	-	-	1392	-	-	622
HCM Lane V/C Ratio	0.004	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	9.7	0	-	-	7.6	0	-	10.8
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.955				0.850		0.987	0.850
Flt Protected		0.990			0.999						0.956	
Satd. Flow (prot)	0	1745	0	0	1684	0	0	1765	1500	0	1582	1425
Flt Permitted		0.990			0.999						0.956	
Satd. Flow (perm)	0	1745	0	0	1684	0	0	1765	1500	0	1582	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	36	134	1	4	102	52	0	0	1	31	0	25
Future Volume (vph)	36	134	1	4	102	52	0	0	1	31	0	25
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	38	141	1	4	107	55	0	0	1	33	0	26
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	180	0	0	166	0	0	0	1	0	36	23

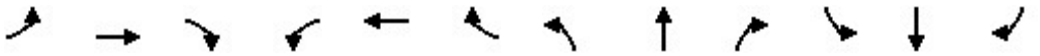
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	134	1	4	102	52	0	0	1	31	0	25
Future Vol, veh/h	36	134	1	4	102	52	0	0	1	31	0	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	141	1	4	107	55	0	0	1	33	0	26
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

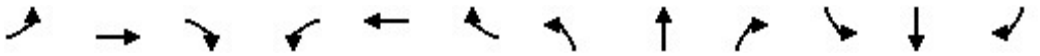
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.5	8	7.4	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	21%	3%	93%	0%
Vol Thru, %	100%	0%	78%	65%	0%	0%
Vol Right, %	0%	100%	1%	33%	7%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	171	158	34	23
LT Vol	0	0	36	4	31	0
Through Vol	0	0	134	102	0	0
RT Vol	0	1	1	52	3	23
Lane Flow Rate	0	1	180	166	35	24
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.215	0.189	0.056	0.03
Departure Headway (Hd)	5.358	4.652	4.303	4.083	5.698	4.58
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	770	839	881	631	783
Service Time	3.08	2.374	2.303	2.094	3.416	2.298
HCM Lane V/C Ratio	0	0.001	0.215	0.188	0.055	0.031
HCM Control Delay	8.1	7.4	8.5	8	8.8	7.4
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	0.8	0.7	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.969			0.952			0.992	
Flt Protected		0.998			0.999			0.986			0.958	
Satd. Flow (prot)	0	1756	0	0	1708	0	0	1656	0	0	1677	0
Flt Permitted		0.998			0.999			0.986			0.958	
Satd. Flow (perm)	0	1756	0	0	1708	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	150	3	3	145	43	3	4	4	46	3	3
Future Volume (vph)	6	150	3	3	145	43	3	4	4	46	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	197	4	4	191	57	4	5	5	61	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	0	0	252	0	0	14	0	0	69	0

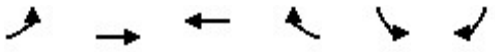
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	150	3	3	145	43	3	4	4	46	3	3
Future Vol, veh/h	6	150	3	3	145	43	3	4	4	46	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	197	4	4	191	57	4	5	5	61	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

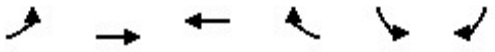
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9	8	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	4%	2%	88%
Vol Thru, %	36%	94%	76%	6%
Vol Right, %	36%	2%	23%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	159	191	52
LT Vol	3	6	3	46
Through Vol	4	150	145	3
RT Vol	4	3	43	3
Lane Flow Rate	14	209	251	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.256	0.296	0.097
Departure Headway (Hd)	4.873	4.4	4.237	5.099
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	733	818	849	703
Service Time	2.91	2.42	2.256	3.131
HCM Lane V/C Ratio	0.019	0.256	0.296	0.097
HCM Control Delay	8	8.9	9	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1	1.2	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	197	190	0	0	0
Future Volume (vph)	0	197	190	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	256	247	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	256	247	0	0	0

Intersection Summary

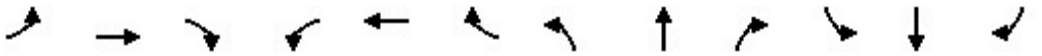
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	197	190	0	0	0
Future Vol, veh/h	0	197	190	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	256	247	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	247	0	-	0	503	247
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1319	-	-	-	528	792
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	528	792
Mov Cap-2 Maneuver	-	-	-	-	528	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	787	-

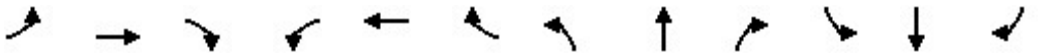
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1763	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1763	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	194	1	1	186	3	2	0	1	1	0	0
Future Volume (vph)	1	194	1	1	186	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	249	1	1	238	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	251	0	0	243	0	0	4	0	0	1	0

Intersection Summary

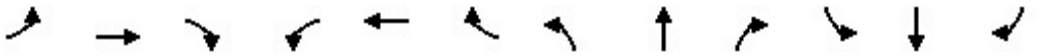
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	194	1	1	186	3	2	0	1	1	0	0
Future Vol, veh/h	1	194	1	1	186	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	249	1	1	238	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	242	0	0	250	0	0	494	496	250	494	494	240
Stage 1	-	-	-	-	-	-	252	252	-	242	242	-
Stage 2	-	-	-	-	-	-	242	244	-	252	252	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1324	-	-	1316	-	-	486	475	789	486	476	799
Stage 1	-	-	-	-	-	-	752	698	-	762	705	-
Stage 2	-	-	-	-	-	-	762	704	-	752	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1324	-	-	1316	-	-	485	474	789	485	475	799
Mov Cap-2 Maneuver	-	-	-	-	-	-	485	474	-	485	475	-
Stage 1	-	-	-	-	-	-	751	697	-	761	704	-
Stage 2	-	-	-	-	-	-	761	703	-	750	697	-

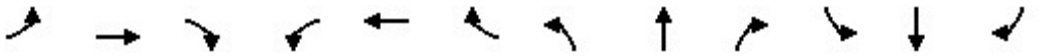
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.5	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	556	1324	-	-	1316	-	-	485
HCM Lane V/C Ratio	0.007	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	11.5	7.7	0	-	7.7	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.998			0.887			0.865	
Flt Protected					0.998			0.992				
Satd. Flow (prot)	0	1761	0	0	1758	0	0	1553	0	0	1526	0
Flt Permitted					0.998			0.992				
Satd. Flow (perm)	0	1761	0	0	1758	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	194	2	6	187	3	1	0	4	0	0	1
Future Volume (vph)	1	194	2	6	187	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	243	3	8	234	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	246	0	0	6	0	0	1	0

Intersection Summary

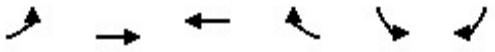
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	194	2	6	187	3	1	0	4	0	0	1
Future Vol, veh/h	1	194	2	6	187	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	243	3	8	234	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	238	0	0	246	0	0	500	501	245	501	500	236
Stage 1	-	-	-	-	-	-	247	247	-	252	252	-
Stage 2	-	-	-	-	-	-	253	254	-	249	248	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1329	-	-	1320	-	-	481	472	794	480	473	803
Stage 1	-	-	-	-	-	-	757	702	-	752	698	-
Stage 2	-	-	-	-	-	-	751	697	-	755	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1320	-	-	477	468	794	474	469	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	477	468	-	474	469	-
Stage 1	-	-	-	-	-	-	756	701	-	751	693	-
Stage 2	-	-	-	-	-	-	745	692	-	749	700	-

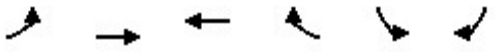
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.2	9.5
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	701	1329	-	-	1320	-	-	803
HCM Lane V/C Ratio	0.009	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	10.2	7.7	0	-	7.7	0	-	9.5
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.892	
Flt Protected		0.999			0.990	
Satd. Flow (prot)	0	1763	1763	0	1558	0
Flt Permitted		0.999			0.990	
Satd. Flow (perm)	0	1763	1763	0	1558	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	196	197	1	1	3
Future Volume (vph)	2	196	197	1	1	3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	3	245	246	1	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	248	247	0	5	0

Intersection Summary

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	196	197	1	1	3
Future Vol, veh/h	2	196	197	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	245	246	1	1	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	247	0	-	0	498	247
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1319	-	-	-	532	792
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	530	792
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	705
HCM Lane V/C Ratio	0.002	-	-	-	0.007
HCM Control Delay (s)	7.7	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected				0.999		
Satd. Flow (prot)	1765	0	0	1763	1526	0
Flt Permitted				0.999		
Satd. Flow (perm)	1765	0	0	1763	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	194	0	2	197	0	2
Future Volume (vph)	194	0	2	197	0	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	243	0	3	246	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	243	0	0	249	3	0

Intersection Summary

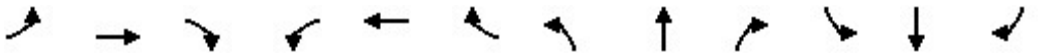
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	194	0	2	197	0	2
Future Vol, veh/h	194	0	2	197	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	243	0	3	246	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	243	0	495	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	252	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1323	-	534	796
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	790	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1323	-	532	796
Mov Cap-2 Maneuver	-	-	-	-	532	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	788	-

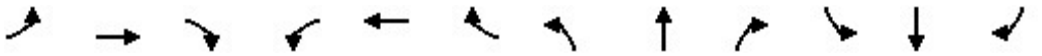
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	796	-	-	1323	-
HCM Lane V/C Ratio	0.003	-	-	0.002	-
HCM Control Delay (s)	9.5	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.981			0.983			0.966	
Flt Protected		0.989			0.993			0.988			0.995	
Satd. Flow (prot)	0	1787	0	0	1815	0	0	1809	0	0	1790	0
Flt Permitted		0.989			0.993			0.988			0.995	
Satd. Flow (perm)	0	1787	0	0	1815	0	0	1809	0	0	1790	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	52	129	53	20	113	21	45	123	24	21	125	49
Future Volume (vph)	52	129	53	20	113	21	45	123	24	21	125	49
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)	59	147	60	23	128	24	51	140	27	24	142	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	175	0	0	218	0	0	222	0

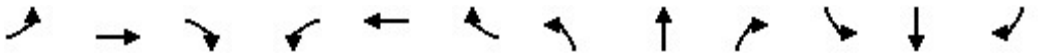
Intersection Summary

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	129	53	20	113	21	45	123	24	21	125	49
Future Vol, veh/h	52	129	53	20	113	21	45	123	24	21	125	49
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	147	60	23	128	24	51	140	27	24	142	56
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

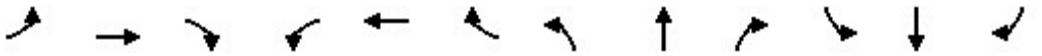
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	10.6	11.3	11.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	22%	13%	11%
Vol Thru, %	64%	55%	73%	64%
Vol Right, %	12%	23%	14%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	192	234	154	195
LT Vol	45	52	20	21
Through Vol	123	129	113	125
RT Vol	24	53	21	49
Lane Flow Rate	218	266	175	222
Geometry Grp	1	1	1	1
Degree of Util (X)	0.333	0.395	0.269	0.332
Departure Headway (Hd)	5.493	5.353	5.54	5.392
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	652	670	648	665
Service Time	3.541	3.399	3.59	3.439
HCM Lane V/C Ratio	0.334	0.397	0.27	0.334
HCM Control Delay	11.3	11.9	10.6	11.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.5	1.9	1.1	1.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.961			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1696	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.602			0.745			0.950			0.950		
Satd. Flow (perm)	1003	1696	0	1242	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			177				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



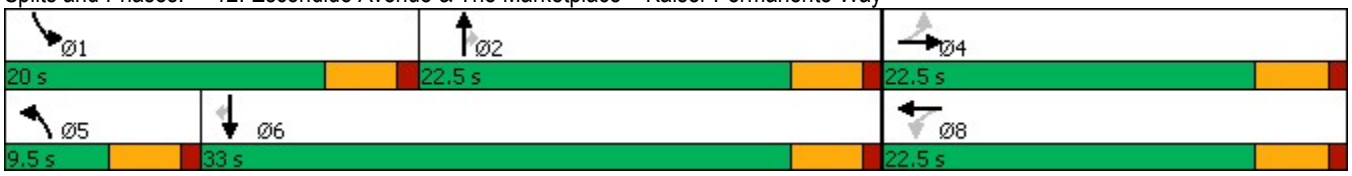
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	73	14	5	155	5	175	3	616	143	292	799	36
Future Volume (vph)	73	14	5	155	5	175	3	616	143	292	799	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	74	14	5	157	5	177	3	622	144	295	807	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	19	0	157	182	0	3	622	144	295	807	36

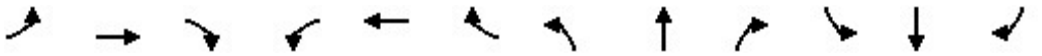
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	73	14	155	5	3	616	143	292	799	36
Future Volume (vph)	73	14	155	5	3	616	143	292	799	36
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.1	12.1	12.1	12.1	5.2	15.4	15.4	13.9	32.4	32.4
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.28	0.28	0.25	0.58	0.58
v/c Ratio	0.34	0.05	0.58	0.39	0.02	0.67	0.26	0.74	0.41	0.04
Control Delay	23.8	15.8	29.6	6.7	27.3	22.7	3.7	34.9	8.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	15.8	29.6	6.7	27.3	22.7	3.7	34.9	8.5	0.1
LOS	C	B	C	A	C	C	A	C	A	A
Approach Delay		22.2		17.3		19.1			15.1	
Approach LOS		C		B		B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 55.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

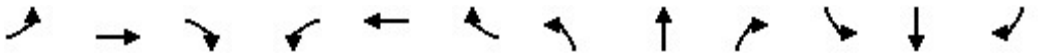




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	14	5	155	5	175	3	616	143	292	799	36
Future Volume (veh/h)	73	14	5	155	5	175	3	616	143	292	799	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	74	14	5	157	5	177	3	622	144	295	807	36
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	268	96	426	9	316	7	916	408	356	1654	738
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.27	0.27	0.22	0.49	0.49
Sat Flow, veh/h	1135	1247	445	1316	41	1467	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	74	0	19	157	0	182	3	622	144	295	807	36
Grp Sat Flow(s),veh/h/ln	1135	0	1692	1316	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	2.9	0.0	0.4	5.0	0.0	5.0	0.1	7.7	3.6	8.2	7.5	0.6
Cycle Q Clear(g_c), s	7.9	0.0	0.4	5.4	0.0	5.0	0.1	7.7	3.6	8.2	7.5	0.6
Prop In Lane	1.00		0.26	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	0	364	426	0	325	7	916	408	356	1654	738
V/C Ratio(X)	0.27	0.00	0.05	0.37	0.00	0.56	0.46	0.68	0.35	0.83	0.49	0.05
Avail Cap(c_a), veh/h	470	0	652	650	0	581	171	1298	579	529	2055	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	14.5	16.7	0.0	16.3	23.2	15.2	13.7	17.3	7.9	6.2
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.5	0.0	1.5	43.3	0.9	0.5	6.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	1.4	0.0	1.6	0.1	2.6	1.1	3.3	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	14.6	17.2	0.0	17.9	66.5	16.1	14.2	24.1	8.2	6.2
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		93			339			769			1138	
Approach Delay, s/veh		19.2			17.6			15.9			12.2	
Approach LOS		B			B			B			B	

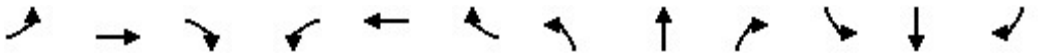
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	17.2		14.6	4.7	27.4		14.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	10.2	9.7		9.9	2.1	9.5		7.4				
Green Ext Time (p_c), s	0.4	3.0		0.2	0.0	5.7		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			557			182			115		154	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



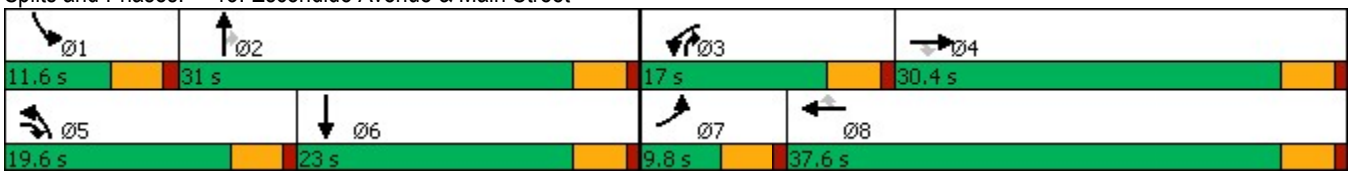
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	51	1316	599	364	991	12	437	194	283	43	52	203
Future Volume (vph)	51	1316	599	364	991	12	437	194	283	43	52	203
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	52	1343	611	371	1011	12	446	198	289	44	53	207
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	1343	611	371	1011	12	446	198	289	44	260	0

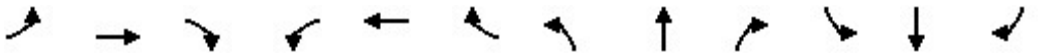
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	51	1316	599	364	991	12	437	194	283	43	52
Future Volume (vph)	51	1316	599	364	991	12	437	194	283	43	52
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.4	19.6	17.0	37.6	37.6	19.6	31.0	17.0	11.6	23.0
Total Split (%)	10.9%	33.8%	21.8%	18.9%	41.8%	41.8%	21.8%	34.4%	18.9%	12.9%	25.6%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	26.0	45.5	12.5	37.4	37.4	15.0	24.3	41.4	6.6	11.5
Actuated g/C Ratio	0.06	0.31	0.55	0.15	0.45	0.45	0.18	0.29	0.50	0.08	0.14
v/c Ratio	0.51	0.89	0.57	0.85	0.67	0.02	0.86	0.38	0.36	0.35	0.75
Control Delay	58.7	37.2	4.1	55.4	23.0	0.0	51.5	27.3	9.7	45.8	28.2
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	58.7	37.2	4.1	55.4	23.0	0.0	51.5	27.3	9.7	45.8	28.2
LOS	E	D	A	E	C	A	D	C	A	D	C
Approach Delay		27.7			31.5			33.4			30.7
Approach LOS		C			C			C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 83.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 30.2	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1316	599	364	991	12	437	194	283	43	52	203
Future Volume (veh/h)	51	1316	599	364	991	12	437	194	283	43	52	203
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	52	1343	611	371	1011	12	446	198	289	44	53	207
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	1420	698	412	1328	592	498	573	698	60	60	234
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.17	0.32	0.32	0.04	0.19	0.19
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	316	1234
Grp Volume(v), veh/h	52	1343	611	371	1011	12	446	198	289	44	0	260
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1550
Q Serve(g_s), s	2.9	24.0	25.9	11.1	22.9	0.4	13.2	7.5	11.2	2.4	0.0	14.4
Cycle Q Clear(g_c), s	2.9	24.0	25.9	11.1	22.9	0.4	13.2	7.5	11.2	2.4	0.0	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	65	1420	698	412	1328	592	498	573	698	60	0	294
V/C Ratio(X)	0.80	0.95	0.88	0.90	0.76	0.02	0.90	0.35	0.41	0.74	0.00	0.88
Avail Cap(c_a), veh/h	96	1420	698	412	1328	592	498	573	698	128	0	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	30.5	21.3	37.2	23.1	16.3	35.8	22.7	15.6	42.0	0.0	34.8
Incr Delay (d2), s/veh	24.5	13.1	12.0	22.2	2.6	0.0	18.6	0.4	0.4	16.2	0.0	22.5
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	1.6	10.7	12.9	5.1	9.1	0.1	5.9	3.1	3.7	1.2	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	43.6	33.3	59.4	25.8	16.3	54.3	23.1	16.0	58.2	0.0	57.4
LnGrp LOS	E	D	C	E	C	B	D	C	B	E	A	E
Approach Vol, veh/h		2006			1394			933			304	
Approach Delay, s/veh		41.1			34.6			35.8			57.5	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	33.0	17.0	30.4	19.6	21.2	8.1	39.3
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	7.1	26.5	12.5	25.9	15.1	18.5	5.3	33.1
Max Q Clear Time (g_c+I1), s	4.4	13.2	13.1	27.9	15.2	16.4	4.9	24.9
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.3	0.0	4.3

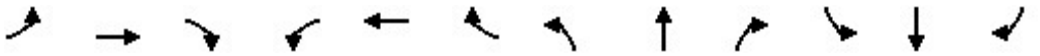
Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Notes

User approved changes to right turn type.

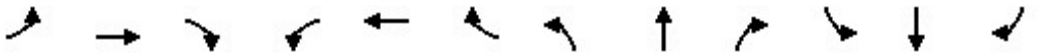
Appendix D

Existing Plus Project Conditions
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.973			0.968				
Flt Protected		0.994			0.962						0.996	
Satd. Flow (prot)	0	1651	0	0	1652	0	0	1708	0	0	1758	0
Flt Permitted		0.994			0.962						0.996	
Satd. Flow (perm)	0	1651	0	0	1652	0	0	1708	0	0	1758	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	289	8	73	0	347	106	35	454	1
Future Volume (vph)	2	6	6	289	8	73	0	347	106	35	454	1
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)	2	7	7	328	9	83	0	394	120	40	516	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	420	0	0	514	0	0	557	0

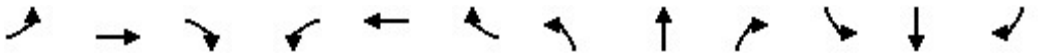
Intersection Summary

Intersection	
Intersection Delay, s/veh	55.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	289	8	73	0	347	106	35	454	1
Future Vol, veh/h	2	6	6	289	8	73	0	347	106	35	454	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	328	9	83	0	394	120	40	516	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

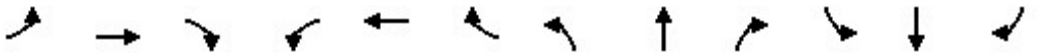
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	35.9	49.3	77.5
HCM LOS	B	E	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	78%	7%
Vol Thru, %	77%	43%	2%	93%
Vol Right, %	23%	43%	20%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	453	14	370	490
LT Vol	0	2	289	35
Through Vol	347	6	8	454
RT Vol	106	6	73	1
Lane Flow Rate	515	16	420	557
Geometry Grp	1	1	1	1
Degree of Util (X)	0.929	0.039	0.823	1.046
Departure Headway (Hd)	6.755	9.056	7.277	6.765
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	541	398	500	540
Service Time	4.755	7.056	5.277	4.768
HCM Lane V/C Ratio	0.952	0.04	0.84	1.031
HCM Control Delay	49.3	12.4	35.9	77.5
HCM Lane LOS	E	B	E	F
HCM 95th-tile Q	11.5	0.1	8	16.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	146	0	2	360	1	4	2	6	1	1	3
Future Volume (vph)	1	146	0	2	360	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	183	0	3	450	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	184	0	0	454	0	0	16	0	0	6	0

Intersection Summary

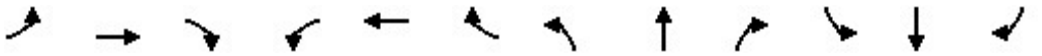
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	146	0	2	360	1	4	2	6	1	1	3
Future Vol, veh/h	1	146	0	2	360	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	183	0	3	450	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	451	0	0	183	0	0	644	642	183	648	642	451
Stage 1	-	-	-	-	-	-	185	185	-	457	457	-
Stage 2	-	-	-	-	-	-	459	457	-	191	185	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1109	-	-	1392	-	-	386	392	859	383	392	608
Stage 1	-	-	-	-	-	-	817	747	-	583	568	-
Stage 2	-	-	-	-	-	-	582	568	-	811	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1109	-	-	1392	-	-	381	390	859	376	390	608
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	390	-	376	390	-
Stage 1	-	-	-	-	-	-	816	746	-	582	566	-
Stage 2	-	-	-	-	-	-	575	566	-	800	746	-

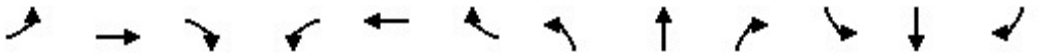
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	531	1109	-	-	1392	-	-	492
HCM Lane V/C Ratio	0.028	0.001	-	-	0.002	-	-	0.013
HCM Control Delay (s)	12	8.2	0	-	7.6	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.943				0.850		0.989	0.850
Flt Protected		0.995			0.999			0.950			0.956	
Satd. Flow (prot)	0	1754	0	0	1662	0	0	1676	1500	0	1585	1425
Flt Permitted		0.995			0.999			0.950			0.956	
Satd. Flow (perm)	0	1754	0	0	1662	0	0	1676	1500	0	1585	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	144	2	5	233	174	2	0	3	102	1	87
Future Volume (vph)	17	144	2	5	233	174	2	0	3	102	1	87
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	20	171	2	6	277	207	2	0	4	121	1	104
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	193	0	0	490	0	0	2	4	0	132	94

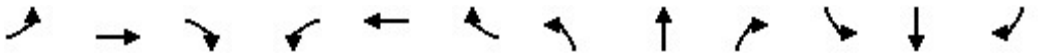
Intersection Summary

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	144	2	5	233	174	2	0	3	102	1	87
Future Vol, veh/h	17	144	2	5	233	174	2	0	3	102	1	87
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	171	2	6	277	207	2	0	4	121	1	104
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

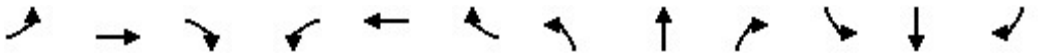
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.3	15	9.2	10.5
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	10%	1%	91%	0%
Vol Thru, %	0%	0%	88%	57%	1%	0%
Vol Right, %	0%	100%	1%	42%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	163	412	112	78
LT Vol	2	0	17	5	102	0
Through Vol	0	0	144	233	1	0
RT Vol	0	3	2	174	9	78
Lane Flow Rate	2	4	194	490	133	93
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.284	0.623	0.245	0.142
Departure Headway (Hd)	7.154	5.927	5.267	4.571	6.625	5.503
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	605	687	780	545	654
Service Time	4.874	3.647	3.267	2.659	4.334	3.212
HCM Lane V/C Ratio	0.004	0.007	0.282	0.628	0.244	0.142
HCM Control Delay	9.9	8.7	10.3	15	11.5	9.1
HCM Lane LOS	A	A	B	B	B	A
HCM 95th-tile Q	0	0	1.2	4.4	1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.949			0.983			0.979	
Flt Protected		0.991			0.999			0.973			0.961	
Satd. Flow (prot)	0	1747	0	0	1673	0	0	1688	0	0	1660	0
Flt Permitted		0.991			0.999			0.973			0.961	
Satd. Flow (perm)	0	1747	0	0	1673	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	42	198	2	5	239	148	15	8	3	113	4	22
Future Volume (vph)	42	198	2	5	239	148	15	8	3	113	4	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	50	236	2	6	285	176	18	10	4	135	5	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	288	0	0	467	0	0	32	0	0	166	0

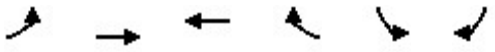
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	198	2	5	239	148	15	8	3	113	4	22
Future Vol, veh/h	42	198	2	5	239	148	15	8	3	113	4	22
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	236	2	6	285	176	18	10	4	135	5	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

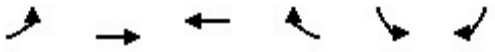
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	15	9.6	11.1
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	17%	1%	81%
Vol Thru, %	31%	82%	61%	3%
Vol Right, %	12%	1%	38%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	242	392	139
LT Vol	15	42	5	113
Through Vol	8	198	239	4
RT Vol	3	2	148	22
Lane Flow Rate	31	288	467	165
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.413	0.614	0.27
Departure Headway (Hd)	6.181	5.165	4.739	5.884
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	578	697	765	611
Service Time	4.231	3.194	2.739	3.922
HCM Lane V/C Ratio	0.054	0.413	0.61	0.27
HCM Control Delay	9.6	11.8	15	11.1
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.2	2	4.3	1.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	311	392	0	1	0
Future Volume (vph)	0	311	392	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	338	426	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	338	426	0	1	0

Intersection Summary

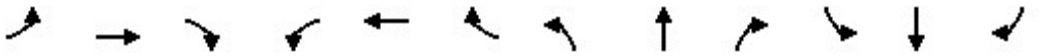
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	311	392	0	1	0
Future Vol, veh/h	0	311	392	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	338	426	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	426	0	-	0	764	426
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1133	-	-	-	372	628
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1133	-	-	-	372	628
Mov Cap-2 Maneuver	-	-	-	-	372	-
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	722	-

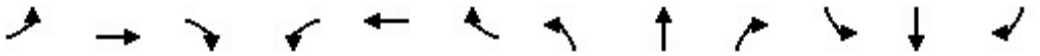
Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1133	-	-	-	372
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	14.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	307	3	0	383	2	4	0	1	1	0	2
Future Volume (vph)	3	307	3	0	383	2	4	0	1	1	0	2
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)	3	334	3	0	416	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	340	0	0	418	0	0	5	0	0	3	0

Intersection Summary

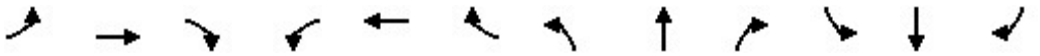
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	307	3	0	383	2	4	0	1	1	0	2
Future Vol, veh/h	3	307	3	0	383	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	334	3	0	416	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	418	0	0	337	0	0	760	760	336	759	760	417
Stage 1	-	-	-	-	-	-	342	342	-	417	417	-
Stage 2	-	-	-	-	-	-	418	418	-	342	343	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1141	-	-	1222	-	-	323	336	706	323	336	636
Stage 1	-	-	-	-	-	-	673	638	-	613	591	-
Stage 2	-	-	-	-	-	-	612	591	-	673	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1141	-	-	1222	-	-	321	335	706	322	335	636
Mov Cap-2 Maneuver	-	-	-	-	-	-	321	335	-	322	335	-
Stage 1	-	-	-	-	-	-	671	636	-	611	591	-
Stage 2	-	-	-	-	-	-	610	591	-	670	635	-

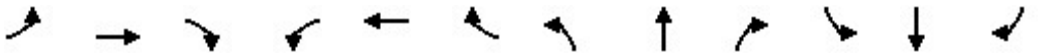
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.2	12.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	360	1141	-	-	1222	-	-	480
HCM Lane V/C Ratio	0.015	0.003	-	-	-	-	-	0.007
HCM Control Delay (s)	15.2	8.2	0	-	0	-	-	12.6
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	301	5	3	379	0	4	0	2	2	0	1
Future Volume (vph)	1	301	5	3	379	0	4	0	2	2	0	1
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)	1	327	5	3	412	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	415	0	0	6	0	0	3	0

Intersection Summary

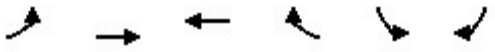
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	301	5	3	379	0	4	0	2	2	0	1
Future Vol, veh/h	1	301	5	3	379	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	327	5	3	412	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	412	0	0	332	0	0	751	750	330	751	752	412
Stage 1	-	-	-	-	-	-	332	332	-	418	418	-
Stage 2	-	-	-	-	-	-	419	418	-	333	334	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1147	-	-	1227	-	-	327	340	712	327	339	640
Stage 1	-	-	-	-	-	-	681	644	-	612	591	-
Stage 2	-	-	-	-	-	-	612	591	-	681	643	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1147	-	-	1227	-	-	325	339	712	325	338	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	325	339	-	325	338	-
Stage 1	-	-	-	-	-	-	680	643	-	611	589	-
Stage 2	-	-	-	-	-	-	609	589	-	678	642	-

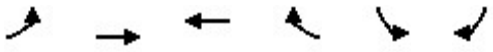
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.2	14.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	397	1147	-	-	1227	-	-	389
HCM Lane V/C Ratio	0.016	0.001	-	-	0.003	-	-	0.008
HCM Control Delay (s)	14.2	8.1	0	-	7.9	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.920	
Flt Protected		0.999			0.980	
Satd. Flow (prot)	0	1763	1761	0	1591	0
Flt Permitted		0.999			0.980	
Satd. Flow (perm)	0	1763	1761	0	1591	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	7	297	361	5	12	18
Future Volume (vph)	7	297	361	5	12	18
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	8	319	388	5	13	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	327	393	0	32	0

Intersection Summary

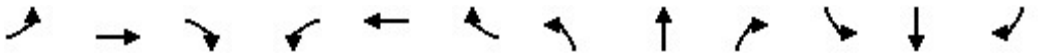
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	297	361	5	12	18
Future Vol, veh/h	7	297	361	5	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	319	388	5	13	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	393	0	-	0	726	391
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1166	-	-	-	391	658
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1166	-	-	-	388	658
Mov Cap-2 Maneuver	-	-	-	-	388	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	725	-

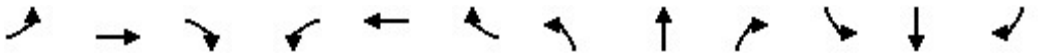
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1166	-	-	-	515
HCM Lane V/C Ratio	0.006	-	-	-	0.063
HCM Control Delay (s)	8.1	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999			0.865			0.922	
Flt Protected		0.999									0.979	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Flt Permitted		0.999									0.979	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			229	
Travel Time (s)		15.1			16.5			6.0			5.2	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	305	0	0	350	4	0	0	1	12	0	17
Future Volume (vph)	6	305	0	0	350	4	0	0	1	12	0	17
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.93	0.93	0.93	0.93	0.92	0.93	0.92	0.93	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)	7	328	0	0	376	4	0	0	1	13	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	335	0	0	380	0	0	1	0	0	31	0

Intersection Summary

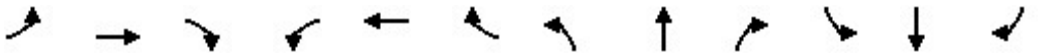
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	305	0	0	350	4	0	0	1	12	0	17
Future Vol, veh/h	6	305	0	0	350	4	0	0	1	12	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	93	93	93	93	92	93	92	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	328	0	0	376	4	0	0	1	13	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	380	0	0	328	0	0	729	722	328	721	720	378
Stage 1	-	-	-	-	-	-	342	342	-	378	378	-
Stage 2	-	-	-	-	-	-	387	380	-	343	342	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1178	-	-	1232	-	-	338	353	713	343	354	669
Stage 1	-	-	-	-	-	-	673	638	-	644	615	-
Stage 2	-	-	-	-	-	-	637	614	-	672	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1178	-	-	1232	-	-	327	351	713	341	352	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	327	351	-	341	352	-
Stage 1	-	-	-	-	-	-	668	634	-	639	615	-
Stage 2	-	-	-	-	-	-	619	614	-	666	634	-

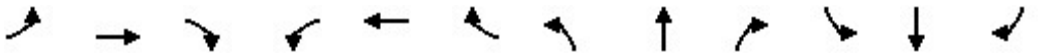
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	10.1	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	713	1178	-	-	1232	-	-	479
HCM Lane V/C Ratio	0.002	0.006	-	-	-	-	-	0.066
HCM Control Delay (s)	10.1	8.1	0	-	0	-	-	13
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.996			0.993			0.929	
Flt Protected		0.989			0.996			0.971			0.998	
Satd. Flow (prot)	0	1793	0	0	1848	0	0	1796	0	0	1727	0
Flt Permitted		0.989			0.996			0.971			0.998	
Satd. Flow (perm)	0	1793	0	0	1848	0	0	1796	0	0	1727	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	82	209	73	18	192	6	91	53	8	6	72	86
Future Volume (vph)	82	209	73	18	192	6	91	53	8	6	72	86
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)	89	227	79	20	209	7	99	58	9	7	78	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	395	0	0	236	0	0	166	0	0	178	0

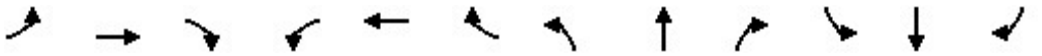
Intersection Summary

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	82	209	73	18	192	6	91	53	8	6	72	86
Future Vol, veh/h	82	209	73	18	192	6	91	53	8	6	72	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	227	79	20	209	7	99	58	9	7	78	93
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

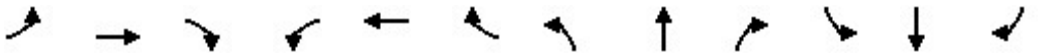
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.4	11.8	11.5	10.9
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	23%	8%	4%
Vol Thru, %	35%	57%	89%	44%
Vol Right, %	5%	20%	3%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	364	216	164
LT Vol	91	82	18	6
Through Vol	53	209	192	72
RT Vol	8	73	6	86
Lane Flow Rate	165	396	235	178
Geometry Grp	1	1	1	1
Degree of Util (X)	0.278	0.579	0.364	0.28
Departure Headway (Hd)	6.061	5.265	5.579	5.657
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	590	684	641	631
Service Time	4.132	3.317	3.641	3.726
HCM Lane V/C Ratio	0.28	0.579	0.367	0.282
HCM Control Delay	11.5	15.4	11.8	10.9
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	1.1	3.7	1.7	1.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			336			1323			134	
Travel Time (s)		5.9			7.6			30.1			3.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
Future Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
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)	0	0	0	32	0	0	0	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	32	0	0	11	0	0	0	0

Intersection Summary

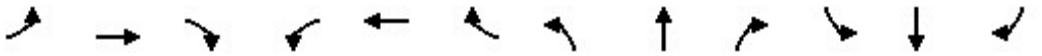
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Future Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	0	0	0	0	11	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	7	12	1	7	7	6	1	0	0	11	0	0
Stage 1	1	1	-	6	6	-	-	-	-	-	-	-
Stage 2	6	11	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Mov Cap-2 Maneuver	1013	883	-	1013	888	-	-	-	-	-	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-

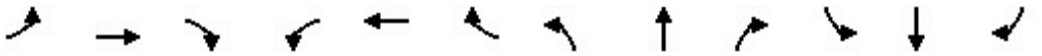
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	1013	1608	-	-
HCM Lane V/C Ratio	-	-	-	-	0.031	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.709			0.757			0.950			0.950		
Satd. Flow (perm)	1182	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					72				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



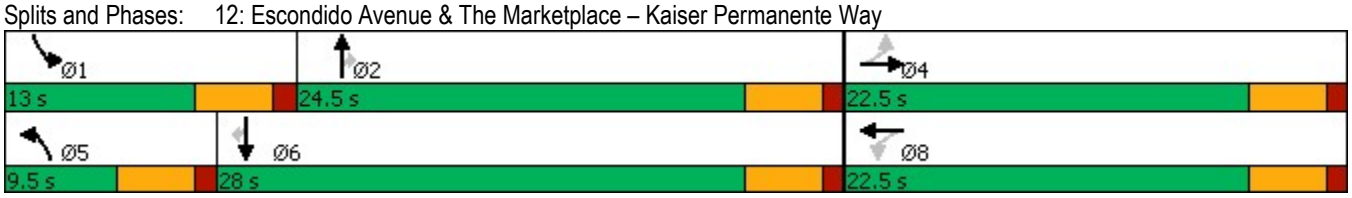
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	53	1	66	1	864	75	168	634	66
Future Volume (vph)	7	2	0	53	1	66	1	864	75	168	634	66
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	58	1	72	1	939	82	183	689	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	58	73	0	1	939	82	183	689	72

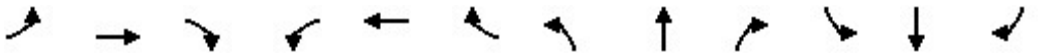
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	53	1	1	864	75	168	634	66
Future Volume (vph)	7	2	53	1	1	864	75	168	634	66
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.7	7.7	7.7	7.7	5.0	21.6	21.6	8.5	33.7	33.7
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.29	0.25	0.01	0.64	0.11	0.67	0.30	0.07
Control Delay	17.9	17.0	22.4	8.1	21.0	14.6	2.3	35.7	5.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.4	8.1	21.0	14.6	2.3	35.7	5.7	1.3
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.4		13.6			11.2	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 49.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

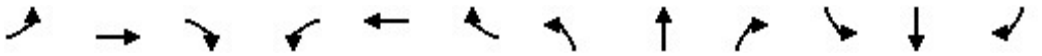




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	53	1	66	1	864	75	168	634	66
Future Volume (veh/h)	7	2	0	53	1	66	1	864	75	168	634	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	58	1	72	1	939	82	183	689	72
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	259	180	0	323	2	151	4	1353	604	227	1829	816
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.40	0.40	0.14	0.54	0.54
Sat Flow, veh/h	1253	1772	0	1336	21	1484	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	58	0	73	1	939	82	183	689	72
Grp Sat Flow(s),veh/h/ln	1253	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.6	0.0	1.7	0.0	8.8	1.3	4.2	4.5	0.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.6	0.0	1.7	0.0	8.8	1.3	4.2	4.5	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	180	0	323	0	153	4	1353	604	227	1829	816
V/C Ratio(X)	0.03	0.01	0.00	0.18	0.00	0.48	0.24	0.69	0.14	0.81	0.38	0.09
Avail Cap(c_a), veh/h	723	836	0	818	0	710	209	1765	787	355	2074	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	15.4	0.0	16.1	0.0	16.2	19.0	9.5	7.2	15.8	5.0	4.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	2.3	27.1	0.8	0.1	7.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.4	0.0	0.6	0.0	2.4	0.3	1.7	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	15.4	0.0	16.4	0.0	18.5	46.2	10.3	7.3	23.1	5.1	4.2
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			131			1022			944	
Approach Delay, s/veh		16.8			17.6			10.1			8.6	
Approach LOS		B			B			B			A	

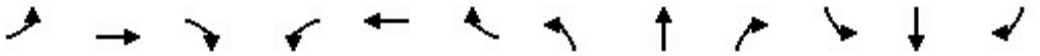
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	19.8		8.4	4.6	25.2		8.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.2	10.8		4.0	2.0	6.5		3.7				
Green Ext Time (p_c), s	0.1	4.5		0.0	0.0	4.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		9.9	
HCM 6th LOS		A	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.862	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1521	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			492			182			213		81	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



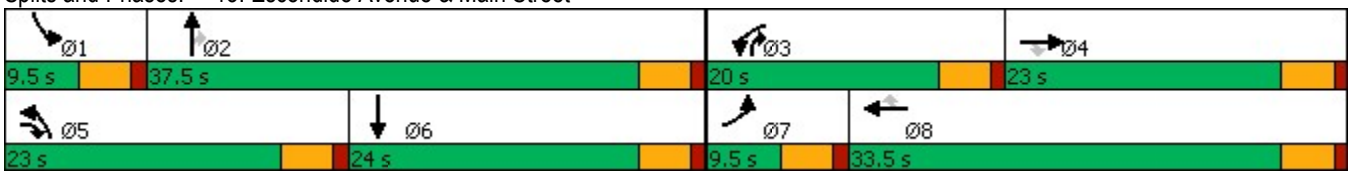
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	830	448	395	825	5	499	76	360	4	6	74
Future Volume (vph)	7	830	448	395	825	5	499	76	360	4	6	74
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	912	492	434	907	5	548	84	396	4	7	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	912	492	434	907	5	548	84	396	4	88	0

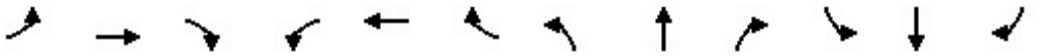
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	830	448	395	825	5	499	76	360	4	6
Future Volume (vph)	7	830	448	395	825	5	499	76	360	4	6
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.0	23.0	20.0	33.5	33.5	23.0	37.5	20.0	9.5	24.0
Total Split (%)	10.6%	25.6%	25.6%	22.2%	37.2%	37.2%	25.6%	41.7%	22.2%	10.6%	26.7%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.5	41.0	15.0	36.2	36.2	18.0	27.5	47.0	5.0	6.8
Actuated g/C Ratio	0.07	0.24	0.54	0.20	0.47	0.47	0.24	0.36	0.62	0.07	0.09
v/c Ratio	0.08	0.78	0.48	0.76	0.57	0.01	0.80	0.13	0.39	0.04	0.42
Control Delay	36.7	33.3	2.8	39.7	17.4	0.0	38.6	18.5	4.9	35.8	16.3
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	36.7	33.3	2.8	39.7	17.4	0.0	38.6	18.5	4.9	35.8	16.3
LOS	D	C	A	D	B	A	D	B	A	D	B
Approach Delay		22.7			24.5			24.0			17.2
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





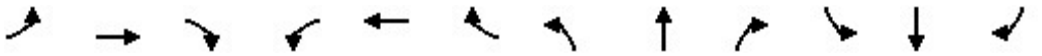
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	830	448	395	825	5	499	76	360	4	6	74
Future Volume (veh/h)	7	830	448	395	825	5	499	76	360	4	6	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	912	492	434	907	5	548	84	396	4	7	81
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1255	720	522	1443	644	640	537	725	9	11	124
Arrive On Green	0.01	0.26	0.26	0.18	0.43	0.43	0.22	0.30	0.30	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	121	1399
Grp Volume(v), veh/h	8	912	492	434	907	5	548	84	396	4	0	88
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1520
Q Serve(g_s), s	0.4	12.3	18.1	10.3	15.0	0.1	12.9	2.5	13.2	0.2	0.0	4.0
Cycle Q Clear(g_c), s	0.4	12.3	18.1	10.3	15.0	0.1	12.9	2.5	13.2	0.2	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	16	1255	720	522	1443	644	640	537	725	9	0	135
V/C Ratio(X)	0.49	0.73	0.68	0.83	0.63	0.01	0.86	0.16	0.55	0.47	0.00	0.65
Avail Cap(c_a), veh/h	112	1255	720	633	1443	644	755	820	965	112	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	24.1	14.4	28.2	15.9	11.7	26.7	18.2	13.0	35.4	0.0	31.4
Incr Delay (d2), s/veh	20.8	2.1	2.7	7.8	0.9	0.0	8.4	0.1	0.6	35.3	0.0	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	0.2	4.7	6.0	4.0	5.4	0.0	5.0	1.0	4.1	0.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	26.2	17.0	36.0	16.8	11.7	35.1	18.3	13.6	70.6	0.0	36.7
LnGrp LOS	E	C	B	D	B	B	D	B	B	E	A	D
Approach Vol, veh/h		1412			1346			1028			92	
Approach Delay, s/veh		23.2			23.0			25.5			38.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	26.1	17.3	23.0	20.2	10.8	5.2	35.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	33.0	15.5	18.5	18.5	19.5	5.0	29.0
Max Q Clear Time (g_c+I1), s	2.2	15.2	12.3	20.1	14.9	6.0	2.4	17.0
Green Ext Time (p_c), s	0.0	1.8	0.5	0.0	0.8	0.3	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

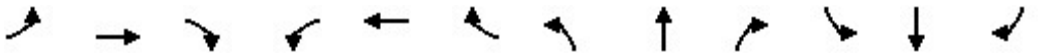
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.933			0.971			0.999	
Flt Protected		0.985			0.976						0.988	
Satd. Flow (prot)	0	1702	0	0	1607	0	0	1714	0	0	1742	0
Flt Permitted		0.985			0.976						0.988	
Satd. Flow (perm)	0	1702	0	0	1607	0	0	1714	0	0	1742	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	69	2	69	3	393	106	85	266	3
Future Volume (vph)	3	6	2	69	2	69	3	393	106	85	266	3
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)	4	7	2	83	2	83	4	473	128	102	320	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	168	0	0	605	0	0	426	0

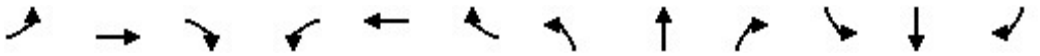
Intersection Summary

Intersection	
Intersection Delay, s/veh	22.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	69	2	69	3	393	106	85	266	3
Future Vol, veh/h	3	6	2	69	2	69	3	393	106	85	266	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	83	2	83	4	473	128	102	320	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

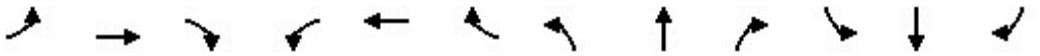
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	11.9	28.9	17.4
HCM LOS	B	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	49%	24%
Vol Thru, %	78%	55%	1%	75%
Vol Right, %	21%	18%	49%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	502	11	140	354
LT Vol	3	3	69	85
Through Vol	393	6	2	266
RT Vol	106	2	69	3
Lane Flow Rate	605	13	169	427
Geometry Grp	1	1	1	1
Degree of Util (X)	0.842	0.025	0.293	0.637
Departure Headway (Hd)	5.01	6.904	6.251	5.375
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	515	573	670
Service Time	3.049	4.991	4.311	3.42
HCM Lane V/C Ratio	0.84	0.025	0.295	0.637
HCM Control Delay	28.9	10.2	11.9	17.4
HCM Lane LOS	D	B	B	C
HCM 95th-tile Q	9.5	0.1	1.2	4.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	207	1	4	148	0	1	0	2	1	0	0
Future Volume (vph)	0	207	1	4	148	0	1	0	2	1	0	0
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)	0	225	1	4	161	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	0	165	0	0	3	0	0	1	0

Intersection Summary

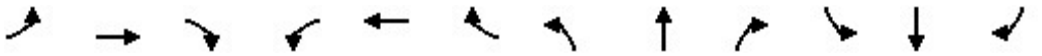
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	207	1	4	148	0	1	0	2	1	0	0
Future Vol, veh/h	0	207	1	4	148	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	225	1	4	161	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	226	0	0	395	395	226	396	395	161
Stage 1	-	-	-	-	-	-	226	226	-	169	169	-
Stage 2	-	-	-	-	-	-	169	169	-	227	226	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1418	-	-	1342	-	-	565	542	813	564	542	884
Stage 1	-	-	-	-	-	-	777	717	-	833	759	-
Stage 2	-	-	-	-	-	-	833	759	-	776	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1418	-	-	1342	-	-	564	540	813	561	540	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	564	540	-	561	540	-
Stage 1	-	-	-	-	-	-	777	717	-	833	757	-
Stage 2	-	-	-	-	-	-	831	757	-	774	717	-

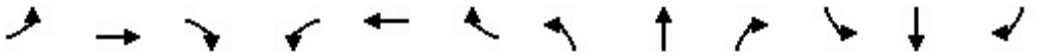
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.1	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	709	1418	-	-	1342	-	-	561
HCM Lane V/C Ratio	0.005	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	10.1	0	-	-	7.7	0	-	11.4
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.961				0.850		0.987	0.850
Flt Protected		0.992			0.999						0.956	
Satd. Flow (prot)	0	1749	0	0	1694	0	0	1765	1500	0	1582	1425
Flt Permitted		0.992			0.999						0.956	
Satd. Flow (perm)	0	1749	0	0	1694	0	0	1765	1500	0	1582	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	36	174	1	4	125	52	0	0	1	31	0	25
Future Volume (vph)	36	174	1	4	125	52	0	0	1	31	0	25
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	38	183	1	4	132	55	0	0	1	33	0	26
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	222	0	0	191	0	0	0	1	0	36	23

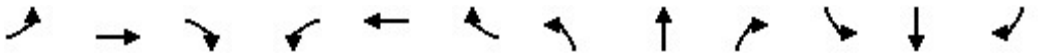
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	174	1	4	125	52	0	0	1	31	0	25
Future Vol, veh/h	36	174	1	4	125	52	0	0	1	31	0	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	183	1	4	132	55	0	0	1	33	0	26
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

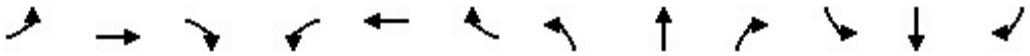
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.9	8.3	7.5	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	17%	2%	93%	0%
Vol Thru, %	100%	0%	82%	69%	0%	0%
Vol Right, %	0%	100%	0%	29%	7%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	211	181	34	23
LT Vol	0	0	36	4	31	0
Through Vol	0	0	174	125	0	0
RT Vol	0	1	1	52	3	23
Lane Flow Rate	0	1	222	191	35	24
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.266	0.22	0.057	0.031
Departure Headway (Hd)	5.512	4.805	4.315	4.155	5.844	4.725
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	745	835	867	614	759
Service Time	3.237	2.53	2.326	2.166	3.566	2.446
HCM Lane V/C Ratio	0	0.001	0.266	0.22	0.057	0.032
HCM Control Delay	8.2	7.5	8.9	8.3	8.9	7.6
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	1.1	0.8	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.973			0.952			0.992	
Flt Protected		0.998			0.999			0.986			0.958	
Satd. Flow (prot)	0	1758	0	0	1715	0	0	1656	0	0	1677	0
Flt Permitted		0.998			0.999			0.986			0.958	
Satd. Flow (perm)	0	1758	0	0	1715	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	190	3	3	168	43	3	4	4	46	3	3
Future Volume (vph)	6	190	3	3	168	43	3	4	4	46	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	250	4	4	221	57	4	5	5	61	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	282	0	0	14	0	0	69	0

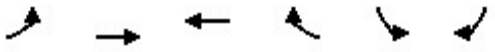
Intersection Summary

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	190	3	3	168	43	3	4	4	46	3	3
Future Vol, veh/h	6	190	3	3	168	43	3	4	4	46	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	250	4	4	221	57	4	5	5	61	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

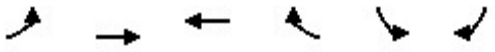
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9.5	8.2	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	3%	1%	88%
Vol Thru, %	36%	95%	79%	6%
Vol Right, %	36%	2%	20%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	199	214	52
LT Vol	3	6	3	46
Through Vol	4	190	168	3
RT Vol	4	3	43	3
Lane Flow Rate	14	262	282	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.323	0.337	0.1
Departure Headway (Hd)	5.064	4.441	4.314	5.281
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	705	809	833	677
Service Time	3.11	2.464	2.336	3.321
HCM Lane V/C Ratio	0.02	0.324	0.339	0.1
HCM Control Delay	8.2	9.6	9.5	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.4	1.5	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	237	213	0	0	0
Future Volume (vph)	0	237	213	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	308	277	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	308	277	0	0	0

Intersection Summary

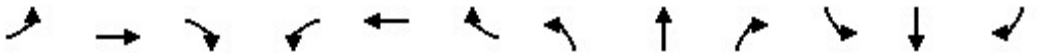
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	237	213	0	0	0
Future Vol, veh/h	0	237	213	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	308	277	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	277	0	-	0	585	277
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1286	-	-	-	473	762
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1286	-	-	-	473	762
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	745	-

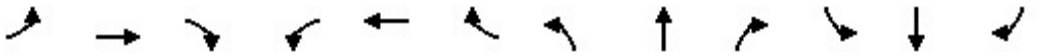
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1286	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	234	1	1	209	3	2	0	1	1	0	0
Future Volume (vph)	1	234	1	1	209	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	300	1	1	268	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	302	0	0	273	0	0	4	0	0	1	0

Intersection Summary

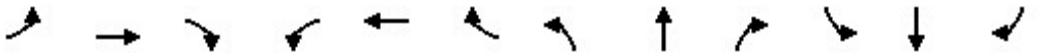
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	234	1	1	209	3	2	0	1	1	0	0
Future Vol, veh/h	1	234	1	1	209	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	300	1	1	268	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	272	0	0	301	0	0	575	577	301	575	575	270
Stage 1	-	-	-	-	-	-	303	303	-	272	272	-
Stage 2	-	-	-	-	-	-	272	274	-	303	303	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1291	-	-	1260	-	-	429	427	739	429	429	769
Stage 1	-	-	-	-	-	-	706	664	-	734	685	-
Stage 2	-	-	-	-	-	-	734	683	-	706	664	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1291	-	-	1260	-	-	428	426	739	428	428	769
Mov Cap-2 Maneuver	-	-	-	-	-	-	428	426	-	428	428	-
Stage 1	-	-	-	-	-	-	705	663	-	733	684	-
Stage 2	-	-	-	-	-	-	733	682	-	704	663	-

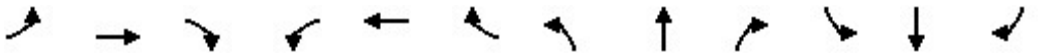
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.3	13.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	498	1291	-	-	1260	-	-	428
HCM Lane V/C Ratio	0.008	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	12.3	7.8	0	-	7.9	0	-	13.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.887			0.865	
Flt Protected					0.999			0.992				
Satd. Flow (prot)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Flt Permitted					0.999			0.992				
Satd. Flow (perm)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	234	2	6	210	3	1	0	4	0	0	1
Future Volume (vph)	1	234	2	6	210	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	293	3	8	263	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	297	0	0	275	0	0	6	0	0	1	0

Intersection Summary

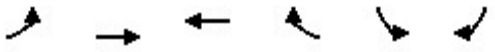
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	234	2	6	210	3	1	0	4	0	0	1
Future Vol, veh/h	1	234	2	6	210	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	293	3	8	263	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	267	0	0	296	0	0	579	580	295	580	579	265
Stage 1	-	-	-	-	-	-	297	297	-	281	281	-
Stage 2	-	-	-	-	-	-	282	283	-	299	298	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1297	-	-	1265	-	-	426	426	744	426	426	774
Stage 1	-	-	-	-	-	-	712	668	-	726	678	-
Stage 2	-	-	-	-	-	-	725	677	-	710	667	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1297	-	-	1265	-	-	423	423	744	420	423	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	423	423	-	420	423	-
Stage 1	-	-	-	-	-	-	711	667	-	725	673	-
Stage 2	-	-	-	-	-	-	719	672	-	705	666	-

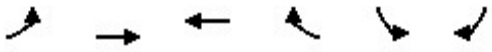
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.6	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	646	1297	-	-	1265	-	-	774
HCM Lane V/C Ratio	0.01	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	10.6	7.8	0	-	7.9	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.991		0.914	
Flt Protected		0.995			0.982	
Satd. Flow (prot)	0	1756	1749	0	1584	0
Flt Permitted		0.995			0.982	
Satd. Flow (perm)	0	1756	1749	0	1584	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	22	216	209	14	9	15
Future Volume (vph)	22	216	209	14	9	15
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	28	270	261	18	11	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	298	279	0	30	0

Intersection Summary

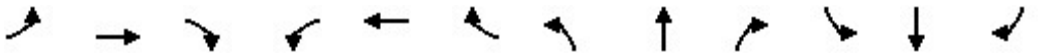
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	216	209	14	9	15
Future Vol, veh/h	22	216	209	14	9	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	270	261	18	11	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	279	0	-	0	596	270
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1284	-	-	-	466	769
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1284	-	-	-	454	769
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	731	-

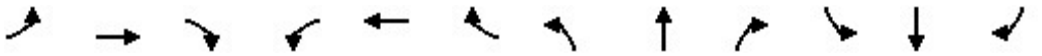
Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1284	-	-	-	610
HCM Lane V/C Ratio	0.021	-	-	-	0.049
HCM Control Delay (s)	7.9	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.992			0.865			0.919	
Flt Protected		0.996			0.999						0.980	
Satd. Flow (prot)	0	1758	0	0	1749	0	0	1526	0	0	1589	0
Flt Permitted		0.996			0.999						0.980	
Satd. Flow (perm)	0	1758	0	0	1749	0	0	1526	0	0	1589	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			181	
Travel Time (s)		15.1			16.5			6.0			4.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	202	0	2	210	13	0	0	2	8	0	12
Future Volume (vph)	20	202	0	2	210	13	0	0	2	8	0	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	25	253	0	3	263	16	0	0	3	10	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	282	0	0	3	0	0	25	0

Intersection Summary

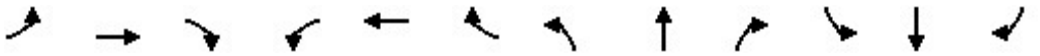
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	20	202	0	2	210	13	0	0	2	8	0	12
Future Vol, veh/h	20	202	0	2	210	13	0	0	2	8	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	253	0	3	263	16	0	0	3	10	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	279	0	0	253	0	0	588	588	253	582	580	271
Stage 1	-	-	-	-	-	-	303	303	-	277	277	-
Stage 2	-	-	-	-	-	-	285	285	-	305	303	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1284	-	-	1312	-	-	421	421	786	424	426	768
Stage 1	-	-	-	-	-	-	706	664	-	729	681	-
Stage 2	-	-	-	-	-	-	722	676	-	705	664	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1284	-	-	1312	-	-	405	410	786	414	415	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	410	-	414	415	-
Stage 1	-	-	-	-	-	-	690	649	-	712	679	-
Stage 2	-	-	-	-	-	-	706	674	-	687	649	-

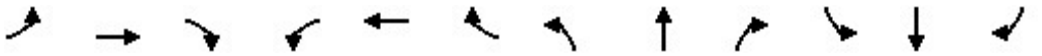
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.6	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	786	1284	-	-	1312	-	-	572
HCM Lane V/C Ratio	0.003	0.019	-	-	0.002	-	-	0.044
HCM Control Delay (s)	9.6	7.9	0	-	7.7	0	-	11.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969			0.982			0.984			0.960	
Flt Protected		0.988			0.994			0.987			0.995	
Satd. Flow (prot)	0	1783	0	0	1818	0	0	1809	0	0	1779	0
Flt Permitted		0.988			0.994			0.987			0.995	
Satd. Flow (perm)	0	1783	0	0	1818	0	0	1809	0	0	1779	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	60	133	57	20	120	21	52	123	24	21	125	62
Future Volume (vph)	60	133	57	20	120	21	52	123	24	21	125	62
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)	68	151	65	23	136	24	59	140	27	24	142	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	284	0	0	183	0	0	226	0	0	236	0

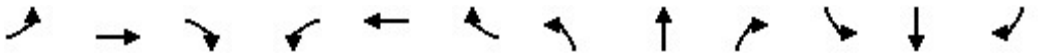
Intersection Summary

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	60	133	57	20	120	21	52	123	24	21	125	62
Future Vol, veh/h	60	133	57	20	120	21	52	123	24	21	125	62
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	151	65	23	136	24	59	140	27	24	142	70
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

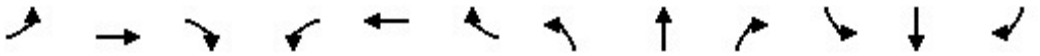
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.6	11	11.8	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	24%	12%	10%
Vol Thru, %	62%	53%	75%	60%
Vol Right, %	12%	23%	13%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	250	161	208
LT Vol	52	60	20	21
Through Vol	123	133	120	125
RT Vol	24	57	21	62
Lane Flow Rate	226	284	183	236
Geometry Grp	1	1	1	1
Degree of Util (X)	0.354	0.431	0.288	0.36
Departure Headway (Hd)	5.636	5.467	5.676	5.487
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	656	629	652
Service Time	3.693	3.521	3.738	3.545
HCM Lane V/C Ratio	0.356	0.433	0.291	0.362
HCM Control Delay	11.8	12.6	11	11.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.6	2.2	1.2	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			342			1323			218	
Travel Time (s)		5.9			7.8			30.1			5.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
Future Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
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)	0	0	0	22	0	0	0	0	36	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	22	0	0	36	0	0	0	0

Intersection Summary

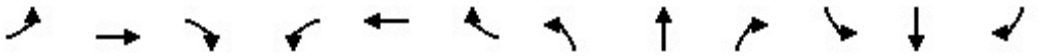
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Future Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	0	0	0	0	36	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	19	37	1	19	19	18	1	0	0	36	0	0
Stage 1	1	1	-	18	18	-	-	-	-	-	-	-
Stage 2	18	36	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Mov Cap-2 Maneuver	995	855	-	995	875	-	-	-	-	-	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-

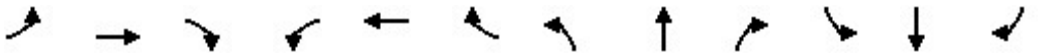
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	995	1575	-	-
HCM Lane V/C Ratio	-	-	-	-	0.022	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.961			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1696	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.600			0.745			0.950			0.950		
Satd. Flow (perm)	1000	1696	0	1242	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			177				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



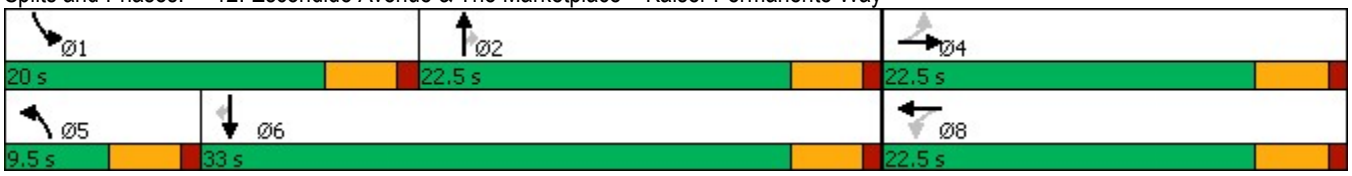
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	73	14	5	158	5	175	3	628	145	292	819	36
Future Volume (vph)	73	14	5	158	5	175	3	628	145	292	819	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	74	14	5	160	5	177	3	634	146	295	827	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	19	0	160	182	0	3	634	146	295	827	36

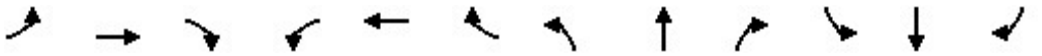
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	73	14	158	5	3	628	145	292	819	36
Future Volume (vph)	73	14	158	5	3	628	145	292	819	36
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.3	12.3	12.3	12.3	5.2	15.8	15.8	14.0	32.8	32.8
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.28	0.28	0.25	0.59	0.59
v/c Ratio	0.34	0.05	0.59	0.39	0.02	0.67	0.27	0.75	0.42	0.04
Control Delay	23.9	15.8	30.0	6.7	27.7	22.8	3.8	35.6	8.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	15.8	30.0	6.7	27.7	22.8	3.8	35.6	8.6	0.1
LOS	C	B	C	A	C	C	A	D	A	A
Approach Delay		22.2		17.6		19.2			15.2	
Approach LOS		C		B		B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 56	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

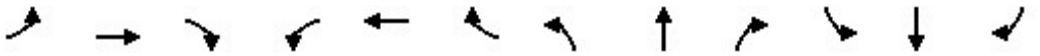




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	14	5	158	5	175	3	628	145	292	819	36
Future Volume (veh/h)	73	14	5	158	5	175	3	628	145	292	819	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	74	14	5	160	5	177	3	634	146	295	827	36
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	268	96	424	9	316	7	925	412	356	1662	741
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.27	0.27	0.22	0.49	0.49
Sat Flow, veh/h	1135	1247	445	1316	41	1467	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	74	0	19	160	0	182	3	634	146	295	827	36
Grp Sat Flow(s),veh/h/ln	1135	0	1692	1316	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	2.9	0.0	0.4	5.2	0.0	5.1	0.1	7.9	3.7	8.3	7.8	0.6
Cycle Q Clear(g_c), s	8.0	0.0	0.4	5.6	0.0	5.1	0.1	7.9	3.7	8.3	7.8	0.6
Prop In Lane	1.00		0.26	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	0	364	424	0	324	7	925	412	356	1662	741
V/C Ratio(X)	0.27	0.00	0.05	0.38	0.00	0.56	0.46	0.69	0.35	0.83	0.50	0.05
Avail Cap(c_a), veh/h	465	0	648	645	0	577	169	1289	575	525	2040	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	14.6	16.9	0.0	16.5	23.4	15.2	13.7	17.4	8.0	6.2
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.6	0.0	1.5	43.3	0.9	0.5	7.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	1.4	0.0	1.7	0.1	2.7	1.1	3.3	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	14.7	17.4	0.0	18.0	66.7	16.2	14.2	24.5	8.2	6.2
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		93			342			783			1158	
Approach Delay, s/veh		19.4			17.7			16.0			12.3	
Approach LOS		B			B			B			B	

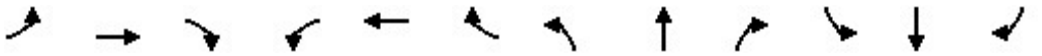
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	17.4		14.6	4.7	27.7		14.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	10.3	9.9		10.0	2.1	9.8		7.6				
Green Ext Time (p_c), s	0.4	3.0		0.2	0.0	5.8		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		14.6	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			553			182			115		153	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



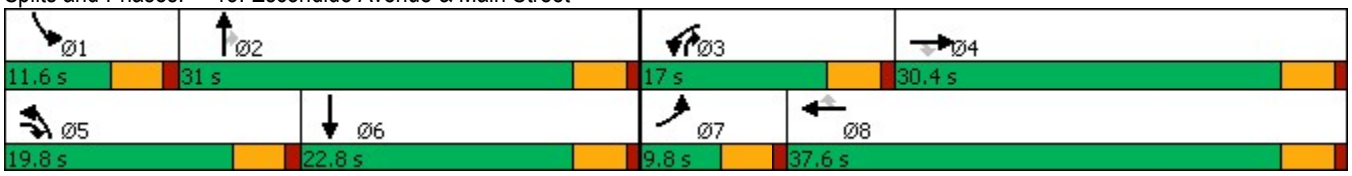
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	51	1316	616	367	991	12	447	194	285	43	52	203
Future Volume (vph)	51	1316	616	367	991	12	447	194	285	43	52	203
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	52	1343	629	374	1011	12	456	198	291	44	53	207
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	1343	629	374	1011	12	456	198	291	44	260	0

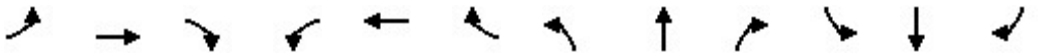
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	51	1316	616	367	991	12	447	194	285	43	52
Future Volume (vph)	51	1316	616	367	991	12	447	194	285	43	52
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.4	19.8	17.0	37.6	37.6	19.8	31.0	17.0	11.6	22.8
Total Split (%)	10.9%	33.8%	22.0%	18.9%	41.8%	41.8%	22.0%	34.4%	18.9%	12.9%	25.3%
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
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	26.0	45.7	12.5	35.3	35.3	15.2	24.6	41.7	6.7	11.6
Actuated g/C Ratio	0.06	0.31	0.55	0.15	0.42	0.42	0.18	0.29	0.50	0.08	0.14
v/c Ratio	0.52	0.89	0.59	0.86	0.71	0.02	0.86	0.38	0.36	0.35	0.75
Control Delay	59.0	37.6	4.6	56.6	25.1	0.0	52.2	27.2	9.7	46.0	28.4
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	59.0	37.6	4.6	56.6	25.1	0.0	52.2	27.2	9.7	46.0	28.4
LOS	E	D	A	E	C	A	D	C	A	D	C
Approach Delay		27.9			33.3			33.9			31.0
Approach LOS		C			C			C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 83.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 85.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1316	616	367	991	12	447	194	285	43	52	203
Future Volume (veh/h)	51	1316	616	367	991	12	447	194	285	43	52	203
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	52	1343	629	374	1011	12	456	198	291	44	53	207
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	1417	700	411	1325	591	503	576	700	60	60	233
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.17	0.32	0.32	0.04	0.19	0.19
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	316	1234
Grp Volume(v), veh/h	52	1343	629	374	1011	12	456	198	291	44	0	260
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1550
Q Serve(g_s), s	2.9	24.0	25.9	11.2	23.0	0.4	13.6	7.5	11.3	2.4	0.0	14.5
Cycle Q Clear(g_c), s	2.9	24.0	25.9	11.2	23.0	0.4	13.6	7.5	11.3	2.4	0.0	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	65	1417	700	411	1325	591	503	576	700	60	0	293
V/C Ratio(X)	0.80	0.95	0.90	0.91	0.76	0.02	0.91	0.34	0.42	0.74	0.00	0.89
Avail Cap(c_a), veh/h	96	1417	700	411	1325	591	503	576	700	128	0	321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	30.6	21.7	37.4	23.2	16.4	35.9	22.7	15.6	42.1	0.0	34.9
Incr Delay (d2), s/veh	24.8	13.5	14.6	23.8	2.7	0.0	19.9	0.4	0.4	16.2	0.0	23.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	10.7	13.9	5.3	9.2	0.1	6.1	3.1	3.8	1.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	44.1	36.3	61.2	25.9	16.4	55.8	23.0	16.0	58.4	0.0	58.1
LnGrp LOS	E	D	D	E	C	B	E	C	B	E	A	E
Approach Vol, veh/h		2024			1397			945			304	
Approach Delay, s/veh		42.3			35.3			36.7			58.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	33.2	17.0	30.4	19.8	21.2	8.1	39.3
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	7.1	26.5	12.5	25.9	15.3	18.3	5.3	33.1
Max Q Clear Time (g_c+I1), s	4.4	13.3	13.2	27.9	15.6	16.5	4.9	25.0
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	0.3	0.0	4.3

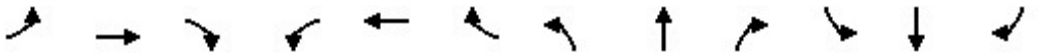
Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Notes

User approved changes to right turn type.

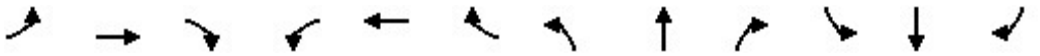
Appendix E

Existing Plus Project Conditions - Improvements
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	50		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.973				0.850			
Flt Protected		0.994			0.962					0.950		
Satd. Flow (prot)	0	1651	0	0	1652	0	0	1765	1500	1676	1765	0
Flt Permitted		0.994			0.962					0.950		
Satd. Flow (perm)	0	1651	0	0	1652	0	0	1765	1500	1676	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	289	8	73	0	347	106	35	454	1
Future Volume (vph)	2	6	6	289	8	73	0	347	106	35	454	1
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)	2	7	7	328	9	83	0	394	120	40	516	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	420	0	0	394	120	40	517	0

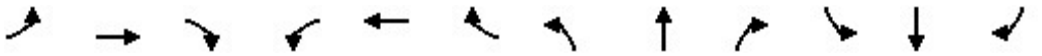
Intersection Summary

Intersection	
Intersection Delay, s/veh	46.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	289	8	73	0	347	106	35	454	1
Future Vol, veh/h	2	6	6	289	8	73	0	347	106	35	454	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	328	9	83	0	394	120	40	516	1
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

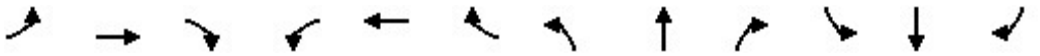
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12.1	33.9	27.8	73.1
HCM LOS	B	D	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	14%	78%	100%	0%
Vol Thru, %	100%	0%	43%	2%	0%	100%
Vol Right, %	0%	100%	43%	20%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	347	106	14	370	35	455
LT Vol	0	0	2	289	35	0
Through Vol	347	0	6	8	0	454
RT Vol	0	106	6	73	0	1
Lane Flow Rate	394	120	16	420	40	517
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.792	0.218	0.038	0.81	0.086	1.04
Departure Headway (Hd)	7.446	6.723	8.785	7.121	7.756	7.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	489	537	410	513	465	507
Service Time	5.146	4.423	6.785	5.121	5.458	4.942
HCM Lane V/C Ratio	0.806	0.223	0.039	0.819	0.086	1.02
HCM Control Delay	32.9	11.3	12.1	33.9	11.2	77.9
HCM Lane LOS	D	B	B	D	B	F
HCM 95th-tile Q	7.2	0.8	0.1	7.8	0.3	15.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.933				0.850		0.998	
Flt Protected		0.985			0.976					0.950		
Satd. Flow (prot)	0	1702	0	0	1607	0	0	1765	1500	1676	1761	0
Flt Permitted		0.985			0.976					0.950		
Satd. Flow (perm)	0	1702	0	0	1607	0	0	1765	1500	1676	1761	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	69	2	69	3	393	106	85	266	3
Future Volume (vph)	3	6	2	69	2	69	3	393	106	85	266	3
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)	4	7	2	83	2	83	4	473	128	102	320	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	168	0	0	477	128	102	324	0

Intersection Summary

Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

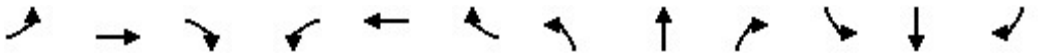
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	69	2	69	3	393	106	85	266	3
Future Vol, veh/h	3	6	2	69	2	69	3	393	106	85	266	3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	83	2	83	4	473	128	102	320	4
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10	11.6	20.4	13.8
HCM LOS	A	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	0%	27%	49%	100%	0%
Vol Thru, %	99%	0%	55%	1%	0%	99%
Vol Right, %	0%	100%	18%	49%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	396	106	11	140	85	269
LT Vol	3	0	3	69	85	0
Through Vol	393	0	6	2	0	266
RT Vol	0	106	2	69	0	3
Lane Flow Rate	477	128	13	169	102	324
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.751	0.176	0.025	0.287	0.18	0.525
Departure Headway (Hd)	5.669	4.957	6.76	6.126	6.341	5.827
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	639	724	528	585	566	619
Service Time	3.401	2.689	4.825	4.172	4.078	3.564
HCM Lane V/C Ratio	0.746	0.177	0.025	0.289	0.18	0.523
HCM Control Delay	23.5	8.8	10	11.6	10.5	14.9
HCM Lane LOS	C	A	A	B	B	B
HCM 95th-tile Q	6.7	0.6	0.1	1.2	0.7	3.1

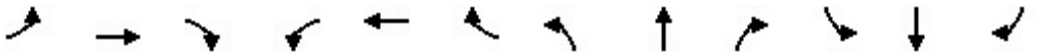
Appendix F

Project Opening Year (2023) Without Project Conditions
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.979			0.970				
Flt Protected		0.994			0.961						0.997	
Satd. Flow (prot)	0	1651	0	0	1660	0	0	1712	0	0	1759	0
Flt Permitted		0.994			0.961						0.997	
Satd. Flow (perm)	0	1651	0	0	1660	0	0	1712	0	0	1759	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	285	8	55	0	361	105	29	472	1
Future Volume (vph)	2	6	6	285	8	55	0	361	105	29	472	1
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)	2	7	7	324	9	63	0	410	119	33	536	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	396	0	0	529	0	0	570	0

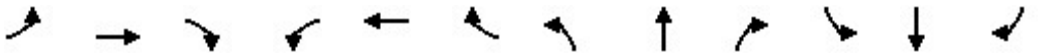
Intersection Summary

Intersection	
Intersection Delay, s/veh	57.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	285	8	55	0	361	105	29	472	1
Future Vol, veh/h	2	6	6	285	8	55	0	361	105	29	472	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	324	9	63	0	410	119	33	536	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

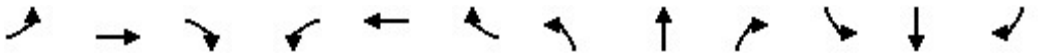
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	32	52.2	81
HCM LOS	B	D	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	82%	6%
Vol Thru, %	77%	43%	2%	94%
Vol Right, %	23%	43%	16%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	466	14	348	502
LT Vol	0	2	285	29
Through Vol	361	6	8	472
RT Vol	105	6	55	1
Lane Flow Rate	530	16	395	570
Geometry Grp	1	1	1	1
Degree of Util (X)	0.946	0.039	0.782	1.059
Departure Headway (Hd)	6.677	9.02	7.349	6.686
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	545	399	494	548
Service Time	4.677	7.02	5.349	4.689
HCM Lane V/C Ratio	0.972	0.04	0.8	1.04
HCM Control Delay	52.2	12.4	32	81
HCM Lane LOS	F	B	D	F
HCM 95th-tile Q	12.1	0.1	7	16.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	139	0	2	338	1	4	2	6	1	1	3
Future Volume (vph)	1	139	0	2	338	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	174	0	3	423	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	427	0	0	16	0	0	6	0

Intersection Summary

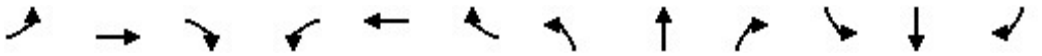
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	139	0	2	338	1	4	2	6	1	1	3
Future Vol, veh/h	1	139	0	2	338	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	174	0	3	423	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	424	0	0	174	0	0	608	606	174	612	606	424
Stage 1	-	-	-	-	-	-	176	176	-	430	430	-
Stage 2	-	-	-	-	-	-	432	430	-	182	176	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1135	-	-	1403	-	-	408	411	869	405	411	630
Stage 1	-	-	-	-	-	-	826	753	-	603	583	-
Stage 2	-	-	-	-	-	-	602	583	-	820	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1135	-	-	1403	-	-	404	409	869	399	409	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	404	409	-	399	409	-
Stage 1	-	-	-	-	-	-	825	752	-	602	581	-
Stage 2	-	-	-	-	-	-	595	581	-	809	752	-

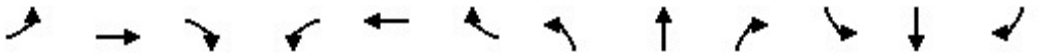
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	11.7	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	553	1135	-	-	1403	-	-	515
HCM Lane V/C Ratio	0.027	0.001	-	-	0.002	-	-	0.012
HCM Control Delay (s)	11.7	8.2	0	-	7.6	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.938				0.850		0.988	0.850
Flt Protected		0.994			0.999			0.950			0.956	
Satd. Flow (prot)	0	1752	0	0	1654	0	0	1676	1500	0	1583	1425
Flt Permitted		0.994			0.999			0.950			0.956	
Satd. Flow (perm)	0	1752	0	0	1654	0	0	1676	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	137	2	5	206	181	2	0	3	106	1	91
Future Volume (vph)	18	137	2	5	206	181	2	0	3	106	1	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	21	163	2	6	245	215	2	0	4	126	1	108
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	186	0	0	466	0	0	2	4	0	138	97

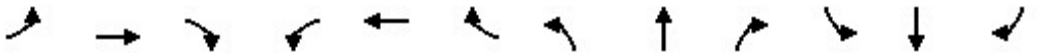
Intersection Summary

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	137	2	5	206	181	2	0	3	106	1	91
Future Vol, veh/h	18	137	2	5	206	181	2	0	3	106	1	91
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	163	2	6	245	215	2	0	4	126	1	108
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

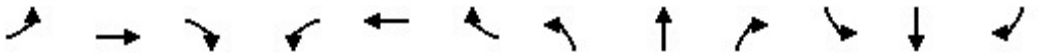
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.2	14.1	9.1	10.4
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	11%	1%	91%	0%
Vol Thru, %	0%	0%	87%	53%	1%	0%
Vol Right, %	0%	100%	1%	46%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	157	392	116	82
LT Vol	2	0	18	5	106	0
Through Vol	0	0	137	206	1	0
RT Vol	0	3	2	181	9	82
Lane Flow Rate	2	4	187	467	138	98
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.273	0.591	0.251	0.147
Departure Headway (Hd)	7.081	5.855	5.256	4.557	6.549	5.429
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	507	613	688	784	551	663
Service Time	4.8	3.573	3.256	2.642	4.259	3.138
HCM Lane V/C Ratio	0.004	0.007	0.272	0.596	0.25	0.148
HCM Control Delay	9.8	8.6	10.2	14.1	11.4	9.1
HCM Lane LOS	A	A	B	B	B	A
HCM 95th-tile Q	0	0	1.1	3.9	1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.944			0.984			0.979	
Flt Protected		0.991			0.999			0.972			0.961	
Satd. Flow (prot)	0	1747	0	0	1664	0	0	1688	0	0	1660	0
Flt Permitted		0.991			0.999			0.972			0.961	
Satd. Flow (perm)	0	1747	0	0	1664	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	44	194	2	5	212	154	16	8	3	118	4	23
Future Volume (vph)	44	194	2	5	212	154	16	8	3	118	4	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	52	231	2	6	252	183	19	10	4	140	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	285	0	0	441	0	0	33	0	0	172	0

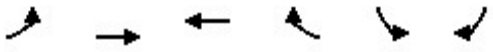
Intersection Summary

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	194	2	5	212	154	16	8	3	118	4	23
Future Vol, veh/h	44	194	2	5	212	154	16	8	3	118	4	23
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	231	2	6	252	183	19	10	4	140	5	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

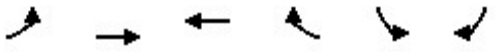
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.7	14.1	9.5	11.1
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	18%	1%	81%
Vol Thru, %	30%	81%	57%	3%
Vol Right, %	11%	1%	42%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	240	371	145
LT Vol	16	44	5	118
Through Vol	8	194	212	4
RT Vol	3	2	154	23
Lane Flow Rate	32	286	442	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.409	0.581	0.279
Departure Headway (Hd)	6.13	5.156	4.736	5.822
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	583	697	768	616
Service Time	4.18	3.188	2.736	3.862
HCM Lane V/C Ratio	0.055	0.41	0.576	0.281
HCM Control Delay	9.5	11.7	14.1	11.1
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.2	2	3.8	1.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	311	371	0	1	0
Future Volume (vph)	0	311	371	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	338	403	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	338	403	0	1	0

Intersection Summary

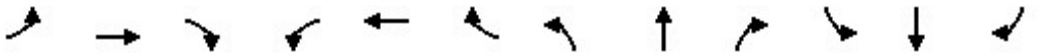
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	311	371	0	1	0
Future Vol, veh/h	0	311	371	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	338	403	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	403	0	-	0	741	403
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1156	-	-	-	384	647
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1156	-	-	-	384	647
Mov Cap-2 Maneuver	-	-	-	-	384	-
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	722	-

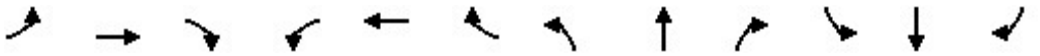
Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1156	-	-	-	384
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	14.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	307	3	0	362	2	4	0	1	1	0	2
Future Volume (vph)	3	307	3	0	362	2	4	0	1	1	0	2
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)	3	334	3	0	393	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	340	0	0	395	0	0	5	0	0	3	0

Intersection Summary

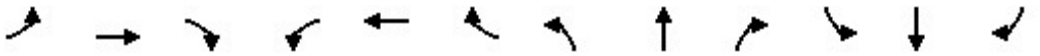
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	307	3	0	362	2	4	0	1	1	0	2
Future Vol, veh/h	3	307	3	0	362	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	334	3	0	393	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	337	0	0	737	737	336	736	737	394
Stage 1	-	-	-	-	-	-	342	342	-	394	394	-
Stage 2	-	-	-	-	-	-	395	395	-	342	343	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1164	-	-	1222	-	-	334	346	706	335	346	655
Stage 1	-	-	-	-	-	-	673	638	-	631	605	-
Stage 2	-	-	-	-	-	-	630	605	-	673	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1164	-	-	1222	-	-	332	345	706	334	345	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	332	345	-	334	345	-
Stage 1	-	-	-	-	-	-	671	636	-	629	605	-
Stage 2	-	-	-	-	-	-	628	605	-	670	635	-

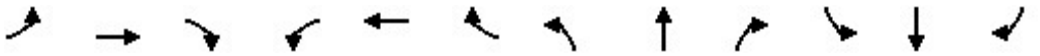
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	14.8	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	1164	-	-	1222	-	-	496
HCM Lane V/C Ratio	0.015	0.003	-	-	-	-	-	0.007
HCM Control Delay (s)	14.8	8.1	0	-	0	-	-	12.3
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	301	5	3	358	0	4	0	2	2	0	1
Future Volume (vph)	1	301	5	3	358	0	4	0	2	2	0	1
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)	1	327	5	3	389	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	392	0	0	6	0	0	3	0

Intersection Summary

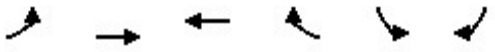
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	301	5	3	358	0	4	0	2	2	0	1
Future Vol, veh/h	1	301	5	3	358	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	327	5	3	389	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	389	0	0	332	0	0	728	727	330	728	729	389
Stage 1	-	-	-	-	-	-	332	332	-	395	395	-
Stage 2	-	-	-	-	-	-	396	395	-	333	334	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1170	-	-	1227	-	-	339	351	712	339	350	659
Stage 1	-	-	-	-	-	-	681	644	-	630	605	-
Stage 2	-	-	-	-	-	-	629	605	-	681	643	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1170	-	-	1227	-	-	337	350	712	337	349	659
Mov Cap-2 Maneuver	-	-	-	-	-	-	337	350	-	337	349	-
Stage 1	-	-	-	-	-	-	680	643	-	629	603	-
Stage 2	-	-	-	-	-	-	626	603	-	678	642	-

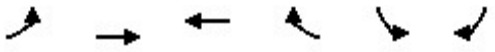
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	13.9	14
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	409	1170	-	-	1227	-	-	403
HCM Lane V/C Ratio	0.016	0.001	-	-	0.003	-	-	0.008
HCM Control Delay (s)	13.9	8.1	0	-	7.9	0	-	14
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1526	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1526	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	303	358	1	0	1
Future Volume (vph)	1	303	358	1	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	1	326	385	1	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	327	386	0	1	0

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	303	358	1	0	1
Future Vol, veh/h	1	303	358	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	326	385	1	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	386	0	-	0	714	386
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	328	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1172	-	-	-	398	662
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1172	-	-	-	398	662
Mov Cap-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1172	-	-	-	662
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.1	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	1765	0	0	1765	1526	0
Flt Permitted						
Satd. Flow (perm)	1765	0	0	1765	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	0	0	360	0	1
Future Volume (vph)	305	0	0	360	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	328	0	0	387	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	328	0	0	387	1	0

Intersection Summary

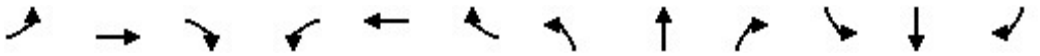
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	305	0	0	360	0	1
Future Vol, veh/h	305	0	0	360	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	328	0	0	387	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	328	0	715	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	387	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1232	-	397	713
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	686	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1232	-	397	713
Mov Cap-2 Maneuver	-	-	-	-	397	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	686	-

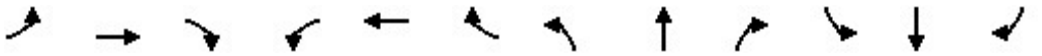
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1232	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.996			0.993			0.931	
Flt Protected		0.990			0.996			0.971			0.998	
Satd. Flow (prot)	0	1794	0	0	1848	0	0	1796	0	0	1731	0
Flt Permitted		0.990			0.996			0.971			0.998	
Satd. Flow (perm)	0	1794	0	0	1848	0	0	1796	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	73	211	70	19	198	6	93	55	8	6	75	85
Future Volume (vph)	73	211	70	19	198	6	93	55	8	6	75	85
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)	79	229	76	21	215	7	101	60	9	7	82	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	384	0	0	243	0	0	170	0	0	181	0

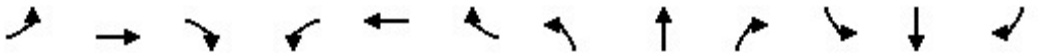
Intersection Summary

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	211	70	19	198	6	93	55	8	6	75	85
Future Vol, veh/h	73	211	70	19	198	6	93	55	8	6	75	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	229	76	21	215	7	101	60	9	7	82	92
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

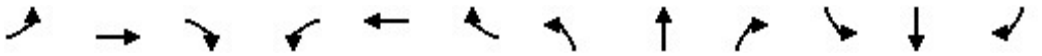
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.1	12	11.6	11
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	21%	9%	4%
Vol Thru, %	35%	60%	89%	45%
Vol Right, %	5%	20%	3%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	156	354	223	166
LT Vol	93	73	19	6
Through Vol	55	211	198	75
RT Vol	8	70	6	85
Lane Flow Rate	170	385	242	180
Geometry Grp	1	1	1	1
Degree of Util (X)	0.286	0.566	0.376	0.284
Departure Headway (Hd)	6.066	5.299	5.59	5.673
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	590	677	640	630
Service Time	4.135	3.353	3.653	3.742
HCM Lane V/C Ratio	0.288	0.569	0.378	0.286
HCM Control Delay	11.6	15.1	12	11
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	1.2	3.6	1.7	1.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.708			0.757			0.950			0.950		
Satd. Flow (perm)	1180	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					75				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



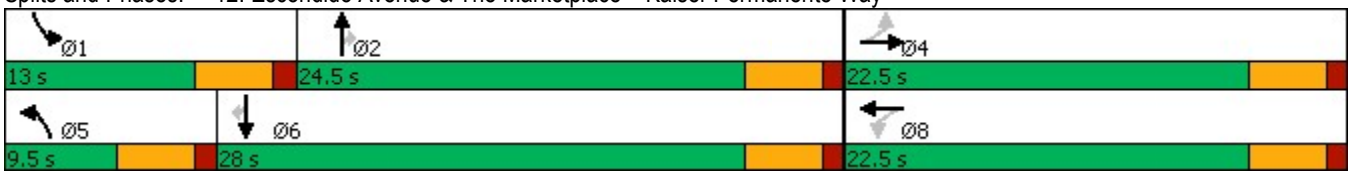
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	54	1	69	1	881	75	175	653	69
Future Volume (vph)	7	2	0	54	1	69	1	881	75	175	653	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	59	1	75	1	958	82	190	710	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	59	76	0	1	958	82	190	710	75

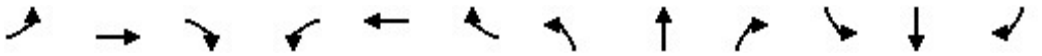
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	54	1	1	881	75	175	653	69
Future Volume (vph)	7	2	54	1	1	881	75	175	653	69
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.8	7.8	7.8	7.8	5.0	21.7	21.7	8.5	34.0	34.0
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.30	0.25	0.01	0.65	0.11	0.70	0.31	0.07
Control Delay	17.9	17.0	22.5	8.0	21.0	14.9	2.4	37.5	5.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.5	8.0	21.0	14.9	2.4	37.5	5.8	1.4
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.3		13.9			11.6	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 49.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 57.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

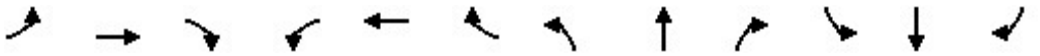




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	54	1	69	1	881	75	175	653	69
Future Volume (veh/h)	7	2	0	54	1	69	1	881	75	175	653	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	59	1	75	1	958	82	190	710	75
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	253	180	0	320	2	151	4	1358	606	235	1850	825
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.40	0.40	0.15	0.55	0.55
Sat Flow, veh/h	1250	1772	0	1336	20	1485	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	59	0	76	1	958	82	190	710	75
Grp Sat Flow(s),veh/h/ln	1250	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.6	0.0	1.9	0.0	9.2	1.3	4.5	4.7	0.9
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.7	0.0	1.9	0.0	9.2	1.3	4.5	4.7	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	180	0	320	0	153	4	1358	606	235	1850	825
V/C Ratio(X)	0.03	0.01	0.00	0.18	0.00	0.50	0.24	0.71	0.14	0.81	0.38	0.09
Avail Cap(c_a), veh/h	704	820	0	803	0	697	205	1732	773	348	2035	908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	15.7	0.0	16.4	0.0	16.5	19.4	9.7	7.3	16.0	5.0	4.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	2.5	28.3	0.9	0.1	8.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.4	0.0	0.7	0.0	2.5	0.3	1.9	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	15.7	0.0	16.7	0.0	19.0	47.6	10.6	7.4	24.4	5.1	4.2
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			135			1041			975	
Approach Delay, s/veh		17.2			18.0			10.4			8.8	
Approach LOS		B			B			B			A	

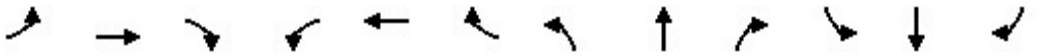
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	20.2		8.5	4.6	25.9		8.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.5	11.2		4.1	2.0	6.7		3.9				
Green Ext Time (p_c), s	0.1	4.5		0.0	0.0	4.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.2	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.861	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1519	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			507			182			211		85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



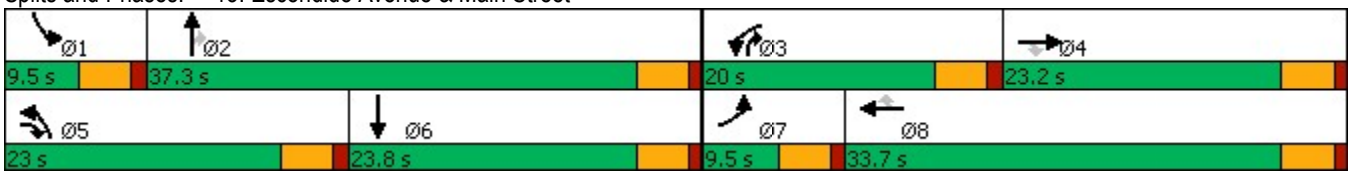
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	864	461	410	858	5	504	79	371	4	6	77
Future Volume (vph)	7	864	461	410	858	5	504	79	371	4	6	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	949	507	451	943	5	554	87	408	4	7	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	949	507	451	943	5	554	87	408	4	92	0

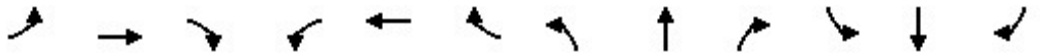
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	864	461	410	858	5	504	79	371	4	6
Future Volume (vph)	7	864	461	410	858	5	504	79	371	4	6
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.2	23.0	20.0	33.7	33.7	23.0	37.3	20.0	9.5	23.8
Total Split (%)	10.6%	25.8%	25.6%	22.2%	37.4%	37.4%	25.6%	41.4%	22.2%	10.6%	26.4%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.7	41.4	15.2	36.6	36.6	18.1	27.7	47.4	5.0	6.8
Actuated g/C Ratio	0.07	0.24	0.54	0.20	0.48	0.48	0.24	0.36	0.62	0.07	0.09
v/c Ratio	0.08	0.81	0.49	0.79	0.59	0.01	0.81	0.14	0.41	0.04	0.43
Control Delay	36.9	34.6	2.8	41.5	17.8	0.0	39.5	18.6	5.2	36.0	16.3
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	36.9	34.6	2.8	41.5	17.8	0.0	39.5	18.6	5.2	36.0	16.3
LOS	D	C	A	D	B	A	D	B	A	D	B
Approach Delay		23.6			25.3			24.4			17.1
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





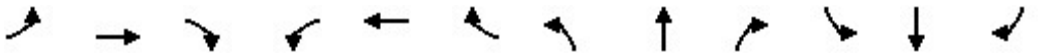
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	864	461	410	858	5	504	79	371	4	6	77
Future Volume (veh/h)	7	864	461	410	858	5	504	79	371	4	6	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	949	507	451	943	5	554	87	408	4	7	85
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1244	718	535	1450	647	642	542	736	9	10	127
Arrive On Green	0.01	0.26	0.26	0.18	0.43	0.43	0.22	0.31	0.31	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	116	1404
Grp Volume(v), veh/h	8	949	507	451	943	5	554	87	408	4	0	92
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1519
Q Serve(g_s), s	0.4	13.2	18.7	10.9	16.1	0.1	13.3	2.6	13.8	0.2	0.0	4.3
Cycle Q Clear(g_c), s	0.4	13.2	18.7	10.9	16.1	0.1	13.3	2.6	13.8	0.2	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	16	1244	718	535	1450	647	642	542	736	9	0	138
V/C Ratio(X)	0.49	0.76	0.71	0.84	0.65	0.01	0.86	0.16	0.55	0.47	0.00	0.67
Avail Cap(c_a), veh/h	110	1244	718	620	1450	647	741	799	953	110	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	24.9	15.0	28.7	16.4	11.8	27.3	18.4	13.0	36.1	0.0	32.0
Incr Delay (d2), s/veh	20.9	2.8	3.2	9.2	1.0	0.0	9.2	0.1	0.7	35.3	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.1	6.5	4.3	5.8	0.0	5.2	1.0	4.3	0.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	27.8	18.1	37.8	17.4	11.8	36.5	18.5	13.6	71.4	0.0	37.5
LnGrp LOS	E	C	B	D	B	B	D	B	B	E	A	D
Approach Vol, veh/h		1464			1399			1049			96	
Approach Delay, s/veh		24.6			24.0			26.1			38.9	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	26.7	17.9	23.2	20.5	11.1	5.2	35.8
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	5.0	32.8	15.5	18.7	18.5	19.3	5.0	29.2
Max Q Clear Time (g_c+I1), s	2.2	15.8	12.9	20.7	15.3	6.3	2.4	18.1
Green Ext Time (p_c), s	0.0	1.8	0.5	0.0	0.7	0.3	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

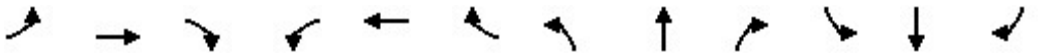
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.935			0.975			0.999	
Flt Protected		0.985			0.975						0.991	
Satd. Flow (prot)	0	1702	0	0	1609	0	0	1721	0	0	1747	0
Flt Permitted		0.985			0.975						0.991	
Satd. Flow (perm)	0	1702	0	0	1609	0	0	1721	0	0	1747	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	61	2	57	3	409	93	65	277	3
Future Volume (vph)	3	6	2	61	2	57	3	409	93	65	277	3
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)	4	7	2	73	2	69	4	493	112	78	334	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	144	0	0	609	0	0	416	0

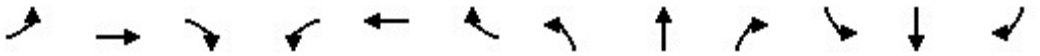
Intersection Summary

Intersection	
Intersection Delay, s/veh	21.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	6	2	61	2	57	3	409	93	65	277	3
Future Vol, veh/h	3	6	2	61	2	57	3	409	93	65	277	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	73	2	69	4	493	112	78	334	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

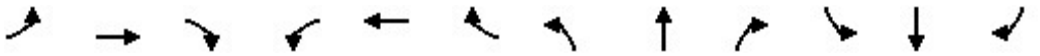
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	11.3	27.2	16.1
HCM LOS	A	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	51%	19%
Vol Thru, %	81%	55%	2%	80%
Vol Right, %	18%	18%	47%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	11	120	345
LT Vol	3	3	61	65
Through Vol	409	6	2	277
RT Vol	93	2	57	3
Lane Flow Rate	608	13	145	416
Geometry Grp	1	1	1	1
Degree of Util (X)	0.83	0.025	0.25	0.607
Departure Headway (Hd)	4.909	6.762	6.213	5.261
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	736	527	577	686
Service Time	2.94	4.833	4.264	3.298
HCM Lane V/C Ratio	0.826	0.025	0.251	0.606
HCM Control Delay	27.2	10	11.3	16.1
HCM Lane LOS	D	A	B	C
HCM 95th-tile Q	9.2	0.1	1	4.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	174	1	4	130	0	1	0	2	1	0	0
Future Volume (vph)	0	174	1	4	130	0	1	0	2	1	0	0
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)	0	189	1	4	141	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	0	0	145	0	0	3	0	0	1	0

Intersection Summary

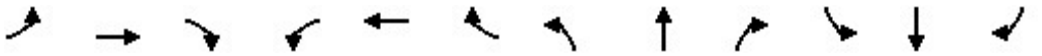
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	174	1	4	130	0	1	0	2	1	0	0
Future Vol, veh/h	0	174	1	4	130	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	189	1	4	141	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	141	0	0	190	0	0	339	339	190	340	339	141
Stage 1	-	-	-	-	-	-	190	190	-	149	149	-
Stage 2	-	-	-	-	-	-	149	149	-	191	190	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1442	-	-	1384	-	-	615	582	852	614	582	907
Stage 1	-	-	-	-	-	-	812	743	-	854	774	-
Stage 2	-	-	-	-	-	-	854	774	-	811	743	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1442	-	-	1384	-	-	614	580	852	611	580	907
Mov Cap-2 Maneuver	-	-	-	-	-	-	614	580	-	611	580	-
Stage 1	-	-	-	-	-	-	812	743	-	854	772	-
Stage 2	-	-	-	-	-	-	851	772	-	809	743	-

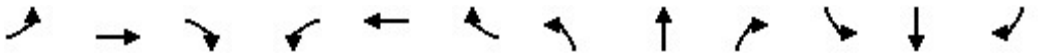
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	9.8	10.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	755	1442	-	-	1384	-	-	611
HCM Lane V/C Ratio	0.004	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	9.8	0	-	-	7.6	0	-	10.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.956				0.850		0.988	0.850
Flt Protected		0.990			0.999						0.956	
Satd. Flow (prot)	0	1745	0	0	1685	0	0	1765	1500	0	1583	1425
Flt Permitted		0.990			0.999						0.956	
Satd. Flow (perm)	0	1745	0	0	1685	0	0	1765	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	37	139	1	4	106	54	0	0	1	32	0	26
Future Volume (vph)	37	139	1	4	106	54	0	0	1	32	0	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	39	146	1	4	112	57	0	0	1	34	0	27
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	186	0	0	173	0	0	0	1	0	37	24

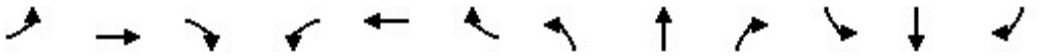
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	139	1	4	106	54	0	0	1	32	0	26
Future Vol, veh/h	37	139	1	4	106	54	0	0	1	32	0	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	146	1	4	112	57	0	0	1	34	0	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

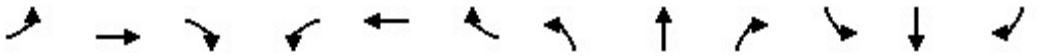
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.6	8.1	7.4	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	21%	2%	92%	0%
Vol Thru, %	100%	0%	79%	65%	0%	0%
Vol Right, %	0%	100%	1%	33%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	177	164	35	23
LT Vol	0	0	37	4	32	0
Through Vol	0	0	139	106	0	0
RT Vol	0	1	1	54	3	23
Lane Flow Rate	0	1	186	173	36	25
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.223	0.196	0.058	0.032
Departure Headway (Hd)	5.389	4.683	4.316	4.096	5.725	4.607
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	765	837	879	628	779
Service Time	3.112	2.405	2.316	2.108	3.443	2.325
HCM Lane V/C Ratio	0	0.001	0.222	0.197	0.057	0.032
HCM Control Delay	8.1	7.4	8.6	8.1	8.8	7.5
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	0.9	0.7	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.970			0.952			0.992	
Flt Protected		0.998			0.999			0.986			0.958	
Satd. Flow (prot)	0	1758	0	0	1710	0	0	1656	0	0	1677	0
Flt Permitted		0.998			0.999			0.986			0.958	
Satd. Flow (perm)	0	1758	0	0	1710	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	156	3	3	151	45	3	4	4	48	3	3
Future Volume (vph)	6	156	3	3	151	45	3	4	4	48	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	205	4	4	199	59	4	5	5	63	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	262	0	0	14	0	0	71	0

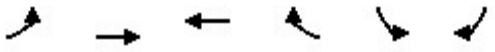
Intersection Summary

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	156	3	3	151	45	3	4	4	48	3	3
Future Vol, veh/h	6	156	3	3	151	45	3	4	4	48	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	205	4	4	199	59	4	5	5	63	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

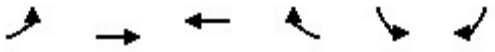
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.2	8.1	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	4%	2%	89%
Vol Thru, %	36%	95%	76%	6%
Vol Right, %	36%	2%	23%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	165	199	54
LT Vol	3	6	3	48
Through Vol	4	156	151	3
RT Vol	4	3	45	3
Lane Flow Rate	14	217	262	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.267	0.309	0.101
Departure Headway (Hd)	4.919	4.421	4.255	5.14
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	814	846	697
Service Time	2.958	2.44	2.274	3.175
HCM Lane V/C Ratio	0.019	0.267	0.31	0.102
HCM Control Delay	8.1	9	9.2	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.1	1.3	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	205	198	0	0	0
Future Volume (vph)	0	205	198	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	266	257	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	266	257	0	0	0

Intersection Summary

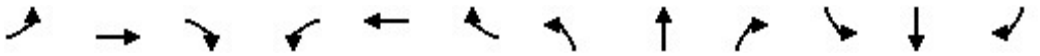
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	205	198	0	0	0
Future Vol, veh/h	0	205	198	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	266	257	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	257	0	-	0	523	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1308	-	-	-	514	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1308	-	-	-	514	782
Mov Cap-2 Maneuver	-	-	-	-	514	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	779	-

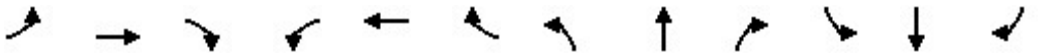
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1308	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1763	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1763	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	202	1	1	194	3	2	0	1	1	0	0
Future Volume (vph)	1	202	1	1	194	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	259	1	1	249	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	261	0	0	254	0	0	4	0	0	1	0

Intersection Summary

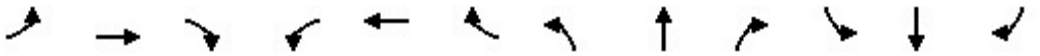
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	202	1	1	194	3	2	0	1	1	0	0
Future Vol, veh/h	1	202	1	1	194	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	259	1	1	249	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	260	0	0	515	517	260	515	515	251
Stage 1	-	-	-	-	-	-	262	262	-	253	253	-
Stage 2	-	-	-	-	-	-	253	255	-	262	262	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1312	-	-	1304	-	-	470	462	779	470	464	788
Stage 1	-	-	-	-	-	-	743	691	-	751	698	-
Stage 2	-	-	-	-	-	-	751	696	-	743	691	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1312	-	-	1304	-	-	469	461	779	469	463	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	469	461	-	469	463	-
Stage 1	-	-	-	-	-	-	742	690	-	750	697	-
Stage 2	-	-	-	-	-	-	750	695	-	741	690	-

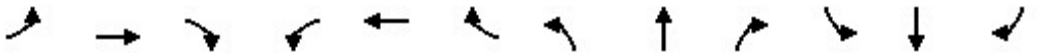
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.7	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	1312	-	-	1304	-	-	469
HCM Lane V/C Ratio	0.007	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	11.7	7.7	0	-	7.8	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.998			0.887			0.865	
Flt Protected					0.998			0.992				
Satd. Flow (prot)	0	1761	0	0	1758	0	0	1553	0	0	1526	0
Flt Permitted					0.998			0.992				
Satd. Flow (perm)	0	1761	0	0	1758	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	202	2	6	195	3	1	0	4	0	0	1
Future Volume (vph)	1	202	2	6	195	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	253	3	8	244	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	257	0	0	256	0	0	6	0	0	1	0

Intersection Summary

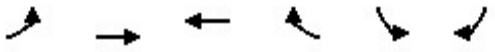
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	202	2	6	195	3	1	0	4	0	0	1
Future Vol, veh/h	1	202	2	6	195	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	253	3	8	244	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	256	0	0	520	521	255	521	520	246
Stage 1	-	-	-	-	-	-	257	257	-	262	262	-
Stage 2	-	-	-	-	-	-	263	264	-	259	258	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1318	-	-	1309	-	-	467	460	784	466	461	793
Stage 1	-	-	-	-	-	-	748	695	-	743	691	-
Stage 2	-	-	-	-	-	-	742	690	-	746	694	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1309	-	-	463	456	784	460	457	793
Mov Cap-2 Maneuver	-	-	-	-	-	-	463	456	-	460	457	-
Stage 1	-	-	-	-	-	-	747	694	-	742	686	-
Stage 2	-	-	-	-	-	-	736	685	-	741	693	-

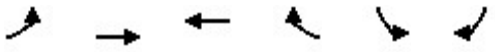
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.3	9.5
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1318	-	-	1309	-	-	793
HCM Lane V/C Ratio	0.009	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	10.3	7.7	0	-	7.8	0	-	9.5
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.892	
Flt Protected		0.999			0.990	
Satd. Flow (prot)	0	1763	1763	0	1558	0
Flt Permitted		0.999			0.990	
Satd. Flow (perm)	0	1763	1763	0	1558	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	204	205	1	1	3
Future Volume (vph)	2	204	205	1	1	3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	3	255	256	1	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	258	257	0	5	0

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	204	205	1	1	3
Future Vol, veh/h	2	204	205	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	255	256	1	1	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	257	0	-	0	518	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1308	-	-	-	518	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1308	-	-	-	516	782
Mov Cap-2 Maneuver	-	-	-	-	516	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	783	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1308	-	-	-	693
HCM Lane V/C Ratio	0.002	-	-	-	0.007
HCM Control Delay (s)	7.8	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected				0.999		
Satd. Flow (prot)	1765	0	0	1763	1526	0
Flt Permitted				0.999		
Satd. Flow (perm)	1765	0	0	1763	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	202	0	2	205	0	2
Future Volume (vph)	202	0	2	205	0	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	253	0	3	256	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	253	0	0	259	3	0

Intersection Summary

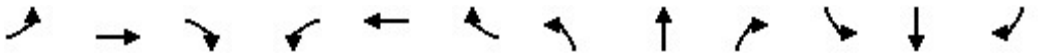
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	202	0	2	205	0	2
Future Vol, veh/h	202	0	2	205	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	0	3	256	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	253	0	515	253
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1312	-	520	786
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	518	786
Mov Cap-2 Maneuver	-	-	-	-	518	-
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	780	-

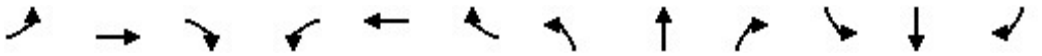
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	786	-	-	1312	-
HCM Lane V/C Ratio	0.003	-	-	0.002	-
HCM Control Delay (s)	9.6	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969			0.982			0.983			0.966	
Flt Protected		0.989			0.993			0.988			0.995	
Satd. Flow (prot)	0	1785	0	0	1816	0	0	1809	0	0	1790	0
Flt Permitted		0.989			0.993			0.988			0.995	
Satd. Flow (perm)	0	1785	0	0	1816	0	0	1809	0	0	1790	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	54	134	55	21	118	22	47	128	25	22	130	51
Future Volume (vph)	54	134	55	21	118	22	47	128	25	22	130	51
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)	61	152	63	24	134	25	53	145	28	25	148	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	276	0	0	183	0	0	226	0	0	231	0

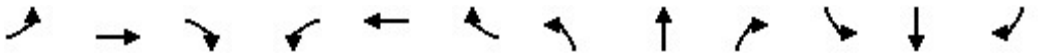
Intersection Summary

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	134	55	21	118	22	47	128	25	22	130	51
Future Vol, veh/h	54	134	55	21	118	22	47	128	25	22	130	51
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	152	63	24	134	25	53	145	28	25	148	58
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

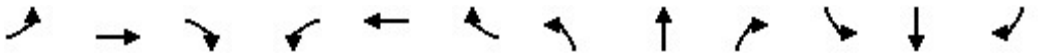
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	11	11.7	11.5
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	22%	13%	11%
Vol Thru, %	64%	55%	73%	64%
Vol Right, %	12%	23%	14%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	243	161	203
LT Vol	47	54	21	22
Through Vol	128	134	118	130
RT Vol	25	55	22	51
Lane Flow Rate	227	276	183	231
Geometry Grp	1	1	1	1
Degree of Util (X)	0.353	0.418	0.287	0.352
Departure Headway (Hd)	5.587	5.444	5.639	5.486
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	641	660	635	653
Service Time	3.647	3.499	3.7	3.546
HCM Lane V/C Ratio	0.354	0.418	0.288	0.354
HCM Control Delay	11.7	12.4	11	11.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.6	2.1	1.2	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.962			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1698	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.583			0.744			0.950			0.950		
Satd. Flow (perm)	972	1698	0	1240	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			184				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



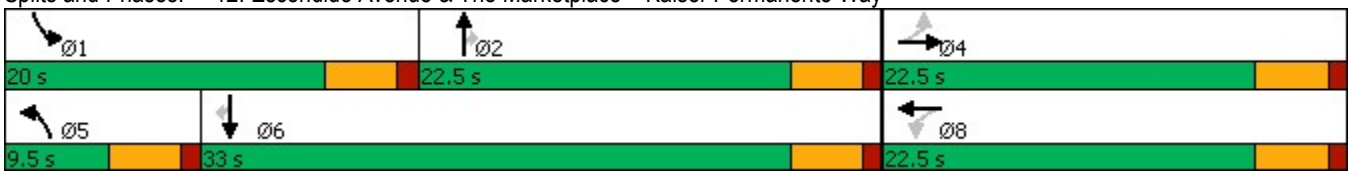
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	76	15	5	161	5	182	3	641	149	304	831	37
Future Volume (vph)	76	15	5	161	5	182	3	641	149	304	831	37
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	77	15	5	163	5	184	3	647	151	307	839	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	20	0	163	189	0	3	647	151	307	839	37

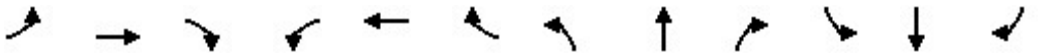
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	76	15	161	5	3	641	149	304	831	37
Future Volume (vph)	76	15	161	5	3	641	149	304	831	37
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.4	12.4	12.4	12.4	5.1	15.9	15.9	14.3	33.2	33.2
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.28	0.28	0.25	0.59	0.59
v/c Ratio	0.36	0.05	0.60	0.40	0.02	0.69	0.28	0.77	0.43	0.04
Control Delay	24.6	15.8	30.6	6.7	27.7	23.3	4.1	36.7	8.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	15.8	30.6	6.7	27.7	23.3	4.1	36.7	8.7	0.1
LOS	C	B	C	A	C	C	A	D	A	A
Approach Delay		22.8		17.7		19.7			15.7	
Approach LOS		C		B		B			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 56.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

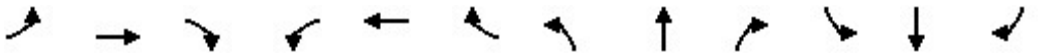




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	15	5	161	5	182	3	641	149	304	831	37
Future Volume (veh/h)	76	15	5	161	5	182	3	641	149	304	831	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	77	15	5	163	5	184	3	647	151	307	839	37
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	281	94	425	9	324	7	921	411	366	1680	749
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.27	0.27	0.23	0.50	0.50
Sat Flow, veh/h	1128	1272	424	1315	40	1468	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	77	0	20	163	0	189	3	647	151	307	839	37
Grp Sat Flow(s),veh/h/ln	1128	0	1696	1315	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	3.2	0.0	0.5	5.5	0.0	5.5	0.1	8.4	4.0	9.0	8.1	0.6
Cycle Q Clear(g_c), s	8.6	0.0	0.5	5.9	0.0	5.5	0.1	8.4	4.0	9.0	8.1	0.6
Prop In Lane	1.00		0.25	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	0	374	425	0	333	7	921	411	366	1680	749
V/C Ratio(X)	0.28	0.00	0.05	0.38	0.00	0.57	0.46	0.70	0.37	0.84	0.50	0.05
Avail Cap(c_a), veh/h	437	0	625	619	0	555	163	1240	553	506	1964	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	15.0	17.3	0.0	17.0	24.3	16.0	14.3	18.0	8.2	6.3
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.6	0.0	1.5	43.4	1.1	0.5	8.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	1.5	0.0	1.8	0.1	2.9	1.2	3.8	2.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	15.1	17.9	0.0	18.5	67.6	17.1	14.9	26.8	8.4	6.3
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		97			352			801			1183	
Approach Delay, s/veh		20.1			18.2			16.9			13.1	
Approach LOS		C			B			B			B	

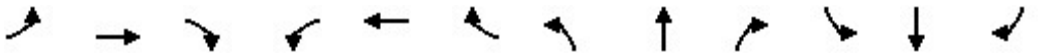
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	17.9		15.3	4.7	28.9		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	11.0	10.4		10.6	2.1	10.1		7.9				
Green Ext Time (p_c), s	0.4	2.9		0.2	0.0	5.9		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			564			182			117		151	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



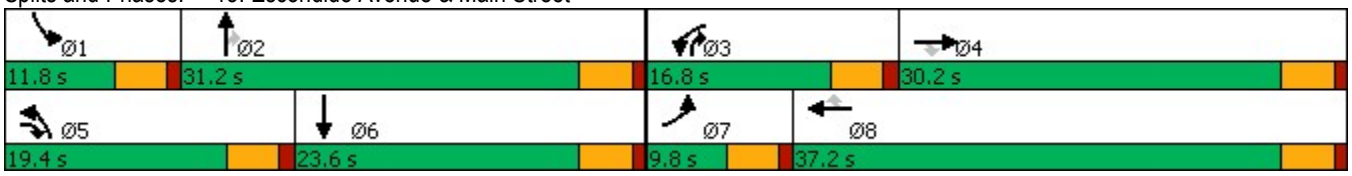
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	1369	623	379	1031	12	455	202	294	45	54	211
Future Volume (vph)	53	1369	623	379	1031	12	455	202	294	45	54	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	54	1397	636	387	1052	12	464	206	300	46	55	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1397	636	387	1052	12	464	206	300	46	270	0

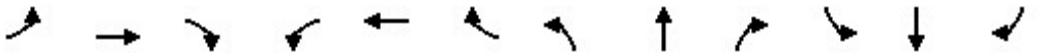
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	1369	623	379	1031	12	455	202	294	45	54
Future Volume (vph)	53	1369	623	379	1031	12	455	202	294	45	54
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.2	19.4	16.8	37.2	37.2	19.4	31.2	16.8	11.8	23.6
Total Split (%)	10.9%	33.6%	21.6%	18.7%	41.3%	41.3%	21.6%	34.7%	18.7%	13.1%	26.2%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	25.8	45.2	12.3	34.9	34.9	14.9	24.7	41.6	6.8	12.1
Actuated g/C Ratio	0.06	0.31	0.54	0.15	0.42	0.42	0.18	0.30	0.50	0.08	0.15
v/c Ratio	0.53	0.94	0.59	0.90	0.75	0.02	0.89	0.39	0.37	0.36	0.76
Control Delay	60.4	42.0	4.6	62.6	26.5	0.0	56.4	27.3	9.9	45.8	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	42.0	4.6	62.6	26.5	0.0	56.4	27.3	9.9	45.8	29.5
LOS	E	D	A	E	C	A	E	C	A	D	C
Approach Delay		31.1			35.9			35.8			31.9
Approach LOS		C			D			D			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 83.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1369	623	379	1031	12	455	202	294	45	54	211
Future Volume (veh/h)	53	1369	623	379	1031	12	455	202	294	45	54	211
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	54	1397	636	387	1052	12	464	206	300	46	55	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1410	691	406	1311	585	492	579	700	61	62	242
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.17	0.33	0.33	0.04	0.20	0.20
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	316	1234
Grp Volume(v), veh/h	54	1397	636	387	1052	12	464	206	300	46	0	270
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1550
Q Serve(g_s), s	3.0	25.4	25.7	11.6	24.5	0.4	13.9	7.8	11.8	2.5	0.0	15.0
Cycle Q Clear(g_c), s	3.0	25.4	25.7	11.6	24.5	0.4	13.9	7.8	11.8	2.5	0.0	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	66	1410	691	406	1311	585	492	579	700	61	0	304
V/C Ratio(X)	0.81	0.99	0.92	0.95	0.80	0.02	0.94	0.36	0.43	0.75	0.00	0.89
Avail Cap(c_a), veh/h	96	1410	691	406	1311	585	492	579	700	132	0	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.9	31.1	22.3	37.7	23.9	16.6	36.2	22.6	15.7	42.0	0.0	34.5
Incr Delay (d2), s/veh	28.2	21.8	17.6	32.8	3.7	0.0	27.1	0.4	0.4	16.9	0.0	22.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.3	14.8	5.9	9.9	0.1	6.7	3.2	3.9	1.3	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	52.9	39.9	70.5	27.6	16.6	63.3	23.0	16.1	58.9	0.0	57.1
LnGrp LOS	E	D	D	E	C	B	E	C	B	E	A	E
Approach Vol, veh/h		2087			1451			970			316	
Approach Delay, s/veh		49.4			39.0			40.1			57.3	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	33.3	16.8	30.2	19.4	21.8	8.2	38.8
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	7.3	26.7	12.3	25.7	14.9	19.1	5.3	32.7
Max Q Clear Time (g_c+I1), s	4.5	13.8	13.6	27.7	15.9	17.0	5.0	26.5
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	0.3	0.0	3.6

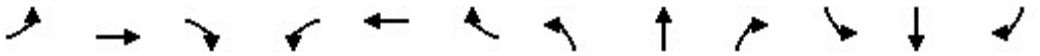
Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved changes to right turn type.

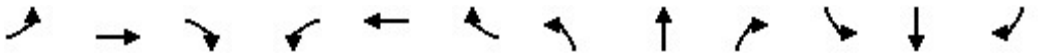
Appendix G

Project Opening Year (2023) With Project Conditions
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.974			0.968				
Flt Protected		0.994			0.962						0.996	
Satd. Flow (prot)	0	1651	0	0	1654	0	0	1708	0	0	1758	0
Flt Permitted		0.994			0.962						0.996	
Satd. Flow (perm)	0	1651	0	0	1654	0	0	1708	0	0	1758	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	300	8	75	0	361	110	36	472	1
Future Volume (vph)	2	6	6	300	8	75	0	361	110	36	472	1
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)	2	7	7	341	9	85	0	410	125	41	536	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	435	0	0	535	0	0	578	0

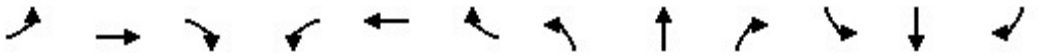
Intersection Summary

Intersection	
Intersection Delay, s/veh	69.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	300	8	75	0	361	110	36	472	1
Future Vol, veh/h	2	6	6	300	8	75	0	361	110	36	472	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	341	9	85	0	410	125	41	536	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

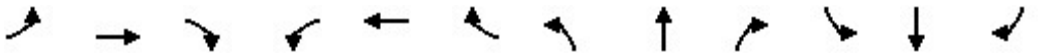
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.9	42	63.6	97.9
HCM LOS	B	E	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	78%	7%
Vol Thru, %	77%	43%	2%	93%
Vol Right, %	23%	43%	20%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	471	14	383	509
LT Vol	0	2	300	36
Through Vol	361	6	8	472
RT Vol	110	6	75	1
Lane Flow Rate	535	16	435	578
Geometry Grp	1	1	1	1
Degree of Util (X)	0.991	0.04	0.866	1.108
Departure Headway (Hd)	6.941	9.476	7.444	6.899
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	525	380	492	526
Service Time	4.941	7.476	5.444	4.951
HCM Lane V/C Ratio	1.019	0.042	0.884	1.099
HCM Control Delay	63.6	12.9	42	97.9
HCM Lane LOS	F	B	E	F
HCM 95th-tile Q	13.6	0.1	9.1	18.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	151	0	2	373	1	4	2	6	1	1	3
Future Volume (vph)	1	151	0	2	373	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	189	0	3	466	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	0	0	470	0	0	16	0	0	6	0

Intersection Summary

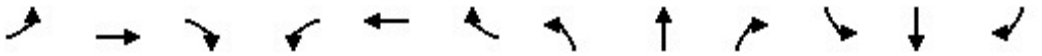
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	151	0	2	373	1	4	2	6	1	1	3
Future Vol, veh/h	1	151	0	2	373	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	189	0	3	466	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	467	0	0	189	0	0	666	664	189	670	664	467
Stage 1	-	-	-	-	-	-	191	191	-	473	473	-
Stage 2	-	-	-	-	-	-	475	473	-	197	191	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1094	-	-	1385	-	-	373	381	853	371	381	596
Stage 1	-	-	-	-	-	-	811	742	-	572	558	-
Stage 2	-	-	-	-	-	-	570	558	-	805	742	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1094	-	-	1385	-	-	369	379	853	365	379	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	379	-	365	379	-
Stage 1	-	-	-	-	-	-	810	741	-	571	556	-
Stage 2	-	-	-	-	-	-	563	556	-	794	741	-

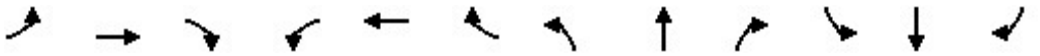
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.2	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	518	1094	-	-	1385	-	-	480
HCM Lane V/C Ratio	0.029	0.001	-	-	0.002	-	-	0.013
HCM Control Delay (s)	12.2	8.3	0	-	7.6	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.943				0.850		0.988	0.850
Flt Protected		0.995			0.999			0.950			0.956	
Satd. Flow (prot)	0	1754	0	0	1662	0	0	1676	1500	0	1583	1425
Flt Permitted		0.995			0.999			0.950			0.956	
Satd. Flow (perm)	0	1754	0	0	1662	0	0	1676	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	149	2	5	241	181	2	0	3	106	1	91
Future Volume (vph)	18	149	2	5	241	181	2	0	3	106	1	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	21	177	2	6	287	215	2	0	4	126	1	108
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	200	0	0	508	0	0	2	4	0	138	97

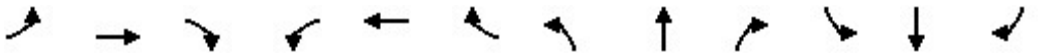
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	149	2	5	241	181	2	0	3	106	1	91
Future Vol, veh/h	18	149	2	5	241	181	2	0	3	106	1	91
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	177	2	6	287	215	2	0	4	126	1	108
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

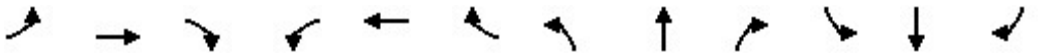
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.6	16	9.3	10.7
HCM LOS	B	C	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	11%	1%	91%	0%
Vol Thru, %	0%	0%	88%	56%	1%	0%
Vol Right, %	0%	100%	1%	42%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	169	427	116	82
LT Vol	2	0	18	5	106	0
Through Vol	0	0	149	241	1	0
RT Vol	0	3	2	181	9	82
Lane Flow Rate	2	4	201	508	138	98
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.297	0.651	0.257	0.151
Departure Headway (Hd)	7.258	6.03	5.317	4.611	6.695	5.573
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	495	595	678	773	539	646
Service Time	4.979	3.75	3.333	2.705	4.404	3.282
HCM Lane V/C Ratio	0.004	0.007	0.296	0.657	0.256	0.152
HCM Control Delay	10	8.8	10.6	16	11.7	9.3
HCM Lane LOS	A	A	B	C	B	A
HCM 95th-tile Q	0	0	1.2	4.9	1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.949			0.984			0.979	
Flt Protected		0.991			0.999			0.972			0.961	
Satd. Flow (prot)	0	1747	0	0	1673	0	0	1688	0	0	1660	0
Flt Permitted		0.991			0.999			0.972			0.961	
Satd. Flow (perm)	0	1747	0	0	1673	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	44	206	2	5	247	154	16	8	3	118	4	23
Future Volume (vph)	44	206	2	5	247	154	16	8	3	118	4	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	52	245	2	6	294	183	19	10	4	140	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	299	0	0	483	0	0	33	0	0	172	0

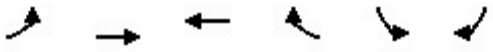
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	206	2	5	247	154	16	8	3	118	4	23
Future Vol, veh/h	44	206	2	5	247	154	16	8	3	118	4	23
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	245	2	6	294	183	19	10	4	140	5	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

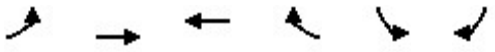
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.3	16.1	9.7	11.4
HCM LOS	B	C	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	17%	1%	81%
Vol Thru, %	30%	82%	61%	3%
Vol Right, %	11%	1%	38%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	252	406	145
LT Vol	16	44	5	118
Through Vol	8	206	247	4
RT Vol	3	2	154	23
Lane Flow Rate	32	300	483	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.436	0.645	0.286
Departure Headway (Hd)	6.301	5.233	4.801	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	566	687	759	601
Service Time	4.363	3.267	2.801	4.016
HCM Lane V/C Ratio	0.057	0.437	0.636	0.288
HCM Control Delay	9.7	12.3	16.1	11.4
HCM Lane LOS	A	B	C	B
HCM 95th-tile Q	0.2	2.2	4.8	1.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	323	406	0	1	0
Future Volume (vph)	0	323	406	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	351	441	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	351	441	0	1	0

Intersection Summary

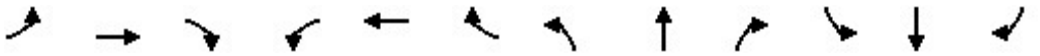
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	323	406	0	1	0
Future Vol, veh/h	0	323	406	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	351	441	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	441	0	-	0	792	441
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	351	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1119	-	-	-	358	616
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1119	-	-	-	358	616
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	713	-

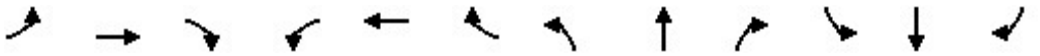
Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1119	-	-	-	358
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	15.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	319	3	0	397	2	4	0	1	1	0	2
Future Volume (vph)	3	319	3	0	397	2	4	0	1	1	0	2
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)	3	347	3	0	432	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	353	0	0	434	0	0	5	0	0	3	0

Intersection Summary

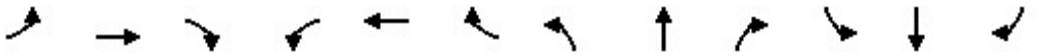
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	319	3	0	397	2	4	0	1	1	0	2
Future Vol, veh/h	3	319	3	0	397	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	347	3	0	432	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	434	0	0	350	0	0	789	789	349	788	789	433
Stage 1	-	-	-	-	-	-	355	355	-	433	433	-
Stage 2	-	-	-	-	-	-	434	434	-	355	356	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1126	-	-	1209	-	-	308	323	694	309	323	623
Stage 1	-	-	-	-	-	-	662	630	-	601	582	-
Stage 2	-	-	-	-	-	-	600	581	-	662	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1126	-	-	1209	-	-	306	322	694	308	322	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	322	-	308	322	-
Stage 1	-	-	-	-	-	-	660	628	-	599	582	-
Stage 2	-	-	-	-	-	-	598	581	-	659	627	-

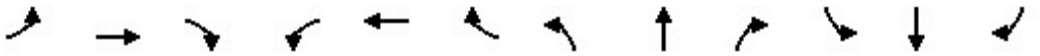
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.6	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	345	1126	-	-	1209	-	-	465
HCM Lane V/C Ratio	0.016	0.003	-	-	-	-	-	0.007
HCM Control Delay (s)	15.6	8.2	0	-	0	-	-	12.8
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	313	5	3	393	0	4	0	2	2	0	1
Future Volume (vph)	1	313	5	3	393	0	4	0	2	2	0	1
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)	1	340	5	3	427	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	346	0	0	430	0	0	6	0	0	3	0

Intersection Summary

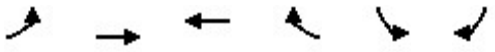
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	313	5	3	393	0	4	0	2	2	0	1
Future Vol, veh/h	1	313	5	3	393	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	340	5	3	427	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	427	0	0	345	0	0	779	778	343	779	780	427
Stage 1	-	-	-	-	-	-	345	345	-	433	433	-
Stage 2	-	-	-	-	-	-	434	433	-	346	347	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1132	-	-	1214	-	-	313	328	700	313	327	628
Stage 1	-	-	-	-	-	-	671	636	-	601	582	-
Stage 2	-	-	-	-	-	-	600	582	-	670	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1132	-	-	1214	-	-	311	327	700	311	326	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	327	-	311	326	-
Stage 1	-	-	-	-	-	-	670	635	-	600	580	-
Stage 2	-	-	-	-	-	-	597	580	-	667	634	-

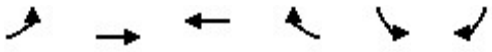
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.6	14.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	382	1132	-	-	1214	-	-	374
HCM Lane V/C Ratio	0.017	0.001	-	-	0.003	-	-	0.009
HCM Control Delay (s)	14.6	8.2	0	-	8	0	-	14.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.920	
Flt Protected		0.999			0.980	
Satd. Flow (prot)	0	1763	1761	0	1591	0
Flt Permitted		0.999			0.980	
Satd. Flow (perm)	0	1763	1761	0	1591	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	7	309	375	5	12	18
Future Volume (vph)	7	309	375	5	12	18
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	8	332	403	5	13	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	340	408	0	32	0

Intersection Summary

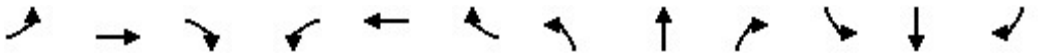
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	309	375	5	12	18
Future Vol, veh/h	7	309	375	5	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	332	403	5	13	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	408	0	-	0	754	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1151	-	-	-	377	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1151	-	-	-	374	645
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	715	-

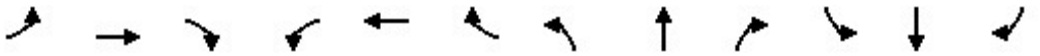
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1151	-	-	-	500
HCM Lane V/C Ratio	0.007	-	-	-	0.065
HCM Control Delay (s)	8.1	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999			0.865			0.922	
Flt Protected		0.999									0.979	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Flt Permitted		0.999									0.979	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			229	
Travel Time (s)		15.1			16.5			6.0			5.2	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	317	0	0	364	4	0	0	1	12	0	17
Future Volume (vph)	6	317	0	0	364	4	0	0	1	12	0	17
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.93	0.93	0.93	0.93	0.92	0.93	0.92	0.93	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)	7	341	0	0	391	4	0	0	1	13	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	348	0	0	395	0	0	1	0	0	31	0

Intersection Summary

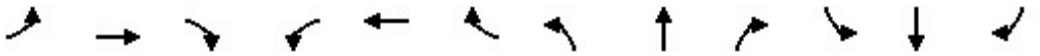
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	317	0	0	364	4	0	0	1	12	0	17
Future Vol, veh/h	6	317	0	0	364	4	0	0	1	12	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	93	93	93	93	92	93	92	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	341	0	0	391	4	0	0	1	13	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	341	0	0	757	750	341	749	748	393
Stage 1	-	-	-	-	-	-	355	355	-	393	393	-
Stage 2	-	-	-	-	-	-	402	395	-	356	355	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1164	-	-	1218	-	-	324	340	701	328	341	656
Stage 1	-	-	-	-	-	-	662	630	-	632	606	-
Stage 2	-	-	-	-	-	-	625	605	-	661	630	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1164	-	-	1218	-	-	313	338	701	326	339	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	313	338	-	326	339	-
Stage 1	-	-	-	-	-	-	657	626	-	628	606	-
Stage 2	-	-	-	-	-	-	607	605	-	655	626	-

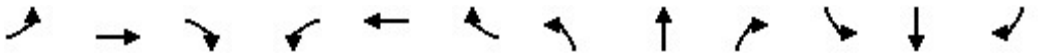
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	10.1	13.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	701	1164	-	-	1218	-	-	462
HCM Lane V/C Ratio	0.002	0.006	-	-	-	-	-	0.068
HCM Control Delay (s)	10.1	8.1	0	-	0	-	-	13.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.996			0.993			0.930	
Flt Protected		0.989			0.996			0.971			0.998	
Satd. Flow (prot)	0	1793	0	0	1848	0	0	1796	0	0	1729	0
Flt Permitted		0.989			0.996			0.971			0.998	
Satd. Flow (perm)	0	1793	0	0	1848	0	0	1796	0	0	1729	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	85	217	76	19	200	6	95	55	8	6	75	89
Future Volume (vph)	85	217	76	19	200	6	95	55	8	6	75	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)	92	236	83	21	217	7	103	60	9	7	82	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	245	0	0	172	0	0	186	0

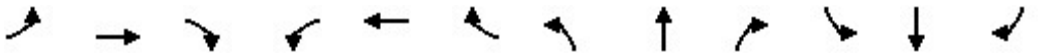
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	217	76	19	200	6	95	55	8	6	75	89
Future Vol, veh/h	85	217	76	19	200	6	95	55	8	6	75	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	236	83	21	217	7	103	60	9	7	82	97
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

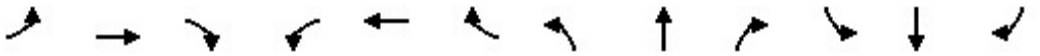
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.5	12.3	11.9	11.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	22%	8%	4%
Vol Thru, %	35%	57%	89%	44%
Vol Right, %	5%	20%	3%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	158	378	225	170
LT Vol	95	85	19	6
Through Vol	55	217	200	75
RT Vol	8	76	6	89
Lane Flow Rate	172	411	245	185
Geometry Grp	1	1	1	1
Degree of Util (X)	0.295	0.61	0.386	0.296
Departure Headway (Hd)	6.177	5.348	5.678	5.771
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	577	670	631	617
Service Time	4.258	3.409	3.75	3.851
HCM Lane V/C Ratio	0.298	0.613	0.388	0.3
HCM Control Delay	11.9	16.5	12.3	11.3
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	1.2	4.2	1.8	1.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			336			1323			134	
Travel Time (s)		5.9			7.6			30.1			3.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
Future Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
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)	0	0	0	32	0	0	0	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	32	0	0	11	0	0	0	0

Intersection Summary

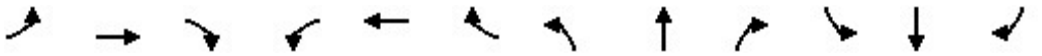
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Future Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	0	0	0	0	11	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	7	12	1	7	7	6	1	0	0	11	0	0
Stage 1	1	1	-	6	6	-	-	-	-	-	-	-
Stage 2	6	11	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Mov Cap-2 Maneuver	1013	883	-	1013	888	-	-	-	-	-	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-

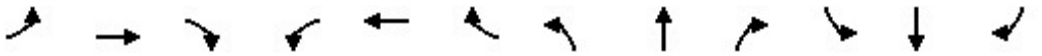
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	1013	1608	-	-
HCM Lane V/C Ratio	-	-	-	-	0.031	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.708			0.757			0.950			0.950		
Satd. Flow (perm)	1180	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					75				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



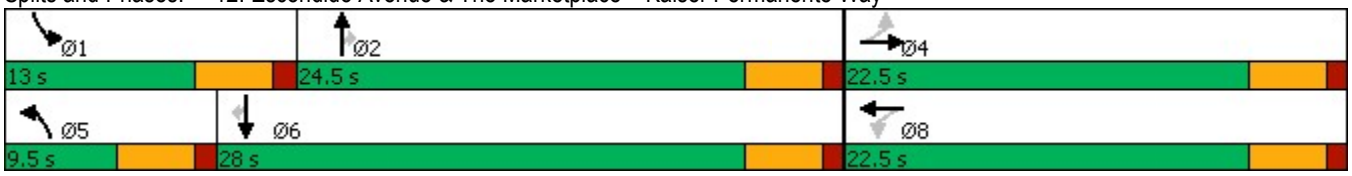
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	55	1	69	1	898	78	175	659	69
Future Volume (vph)	7	2	0	55	1	69	1	898	78	175	659	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	60	1	75	1	976	85	190	716	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	60	76	0	1	976	85	190	716	75

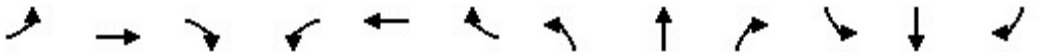
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	55	1	1	898	78	175	659	69
Future Volume (vph)	7	2	55	1	1	898	78	175	659	69
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.8	7.8	7.8	7.8	5.0	21.9	21.9	8.5	34.1	34.1
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.30	0.25	0.01	0.66	0.12	0.70	0.31	0.07
Control Delay	17.9	17.0	22.6	8.0	22.0	15.3	2.5	37.8	5.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.6	8.0	22.0	15.3	2.5	37.8	5.8	1.4
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.4		14.2			11.7	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 49.6	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

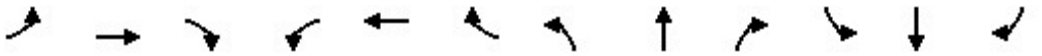




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	55	1	69	1	898	78	175	659	69
Future Volume (veh/h)	7	2	0	55	1	69	1	898	78	175	659	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	60	1	75	1	976	85	190	716	75
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	251	180	0	318	2	151	4	1368	610	235	1861	830
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.41	0.41	0.15	0.55	0.55
Sat Flow, veh/h	1250	1772	0	1336	20	1485	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	60	0	76	1	976	85	190	716	75
Grp Sat Flow(s),veh/h/ln	1250	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.7	0.0	1.9	0.0	9.5	1.4	4.5	4.7	0.9
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.7	0.0	1.9	0.0	9.5	1.4	4.5	4.7	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	180	0	318	0	153	4	1368	610	235	1861	830
V/C Ratio(X)	0.03	0.01	0.00	0.19	0.00	0.50	0.25	0.71	0.14	0.81	0.38	0.09
Avail Cap(c_a), veh/h	698	814	0	796	0	691	203	1718	766	346	2019	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	15.8	0.0	16.6	0.0	16.7	19.5	9.7	7.3	16.2	5.0	4.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	2.5	28.8	1.0	0.1	8.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.5	0.0	0.7	0.0	2.7	0.3	1.9	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	15.9	0.0	16.9	0.0	19.2	48.3	10.8	7.4	24.8	5.1	4.2
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			136			1062			981	
Approach Delay, s/veh		17.3			18.2			10.5			8.8	
Approach LOS		B			B			B			A	

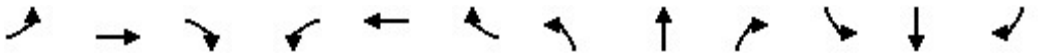
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	20.4		8.5	4.6	26.2		8.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.5	11.5		4.1	2.0	6.7		3.9				
Green Ext Time (p_c), s	0.1	4.4		0.0	0.0	4.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.3	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.861	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1519	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			512			182			211		85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



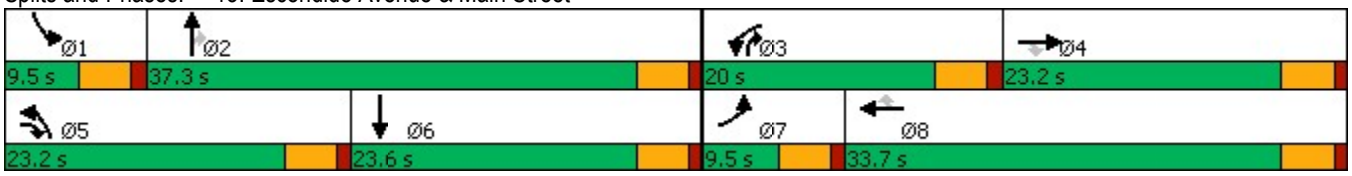
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	864	466	411	858	5	519	79	374	4	6	77
Future Volume (vph)	7	864	466	411	858	5	519	79	374	4	6	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	949	512	452	943	5	570	87	411	4	7	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	949	512	452	943	5	570	87	411	4	92	0

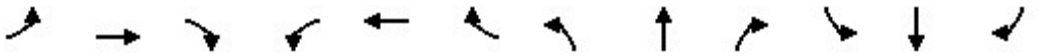
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	864	466	411	858	5	519	79	374	4	6
Future Volume (vph)	7	864	466	411	858	5	519	79	374	4	6
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.2	23.2	20.0	33.7	33.7	23.2	37.3	20.0	9.5	23.6
Total Split (%)	10.6%	25.8%	25.8%	22.2%	37.4%	37.4%	25.8%	41.4%	22.2%	10.6%	26.2%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.7	41.7	15.2	36.6	36.6	18.5	28.0	47.8	5.0	6.8
Actuated g/C Ratio	0.06	0.24	0.54	0.20	0.47	0.47	0.24	0.36	0.62	0.06	0.09
v/c Ratio	0.08	0.81	0.49	0.79	0.59	0.01	0.82	0.14	0.41	0.04	0.44
Control Delay	37.0	34.9	2.8	41.9	18.0	0.0	40.1	18.6	5.2	36.0	16.3
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	37.0	34.9	2.8	41.9	18.0	0.0	40.1	18.6	5.2	36.0	16.3
LOS	D	C	A	D	B	A	D	B	A	D	B
Approach Delay		23.8			25.6			24.9			17.2
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 77.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 67.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





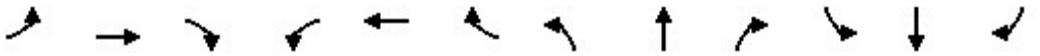
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	864	466	411	858	5	519	79	374	4	6	77
Future Volume (veh/h)	7	864	466	411	858	5	519	79	374	4	6	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	949	512	452	943	5	570	87	411	4	7	85
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1234	721	535	1443	643	656	550	742	9	10	127
Arrive On Green	0.01	0.26	0.26	0.18	0.43	0.43	0.23	0.31	0.31	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	116	1404
Grp Volume(v), veh/h	8	949	512	452	943	5	570	87	411	4	0	92
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1519
Q Serve(g_s), s	0.4	13.3	18.7	11.0	16.3	0.1	13.8	2.6	14.0	0.2	0.0	4.3
Cycle Q Clear(g_c), s	0.4	13.3	18.7	11.0	16.3	0.1	13.8	2.6	14.0	0.2	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	16	1234	721	535	1443	643	656	550	742	9	0	137
V/C Ratio(X)	0.49	0.77	0.71	0.85	0.65	0.01	0.87	0.16	0.55	0.47	0.00	0.67
Avail Cap(c_a), veh/h	109	1234	721	615	1443	643	742	793	948	109	0	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	25.3	15.0	28.9	16.6	12.0	27.4	18.3	12.9	36.4	0.0	32.3
Incr Delay (d2), s/veh	20.9	3.0	3.2	9.5	1.1	0.0	9.9	0.1	0.6	35.4	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	6.6	4.4	5.9	0.0	5.5	1.0	4.3	0.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	28.3	18.3	38.4	17.7	12.0	37.3	18.5	13.6	71.7	0.0	37.8
LnGrp LOS	E	C	B	D	B	B	D	B	B	E	A	D
Approach Vol, veh/h		1469			1400			1068			96	
Approach Delay, s/veh		25.0			24.4			26.6			39.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	27.3	18.0	23.2	21.0	11.1	5.3	35.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	32.8	15.5	18.7	18.7	19.1	5.0	29.2
Max Q Clear Time (g_c+I1), s	2.2	16.0	13.0	20.7	15.8	6.3	2.4	18.3
Green Ext Time (p_c), s	0.0	1.9	0.5	0.0	0.7	0.3	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

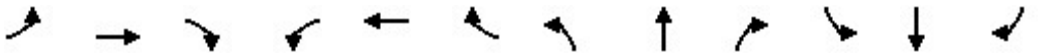
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.933			0.971			0.999	
Flt Protected		0.985			0.976						0.988	
Satd. Flow (prot)	0	1702	0	0	1607	0	0	1714	0	0	1742	0
Flt Permitted		0.985			0.976						0.988	
Satd. Flow (perm)	0	1702	0	0	1607	0	0	1714	0	0	1742	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	71	2	71	3	409	110	88	277	3
Future Volume (vph)	3	6	2	71	2	71	3	409	110	88	277	3
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)	4	7	2	86	2	86	4	493	133	106	334	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	174	0	0	630	0	0	444	0

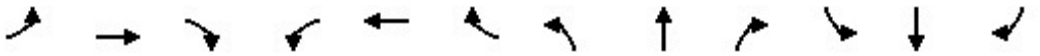
Intersection Summary

Intersection	
Intersection Delay, s/veh	25.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	6	2	71	2	71	3	409	110	88	277	3
Future Vol, veh/h	3	6	2	71	2	71	3	409	110	88	277	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	86	2	86	4	493	133	106	334	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

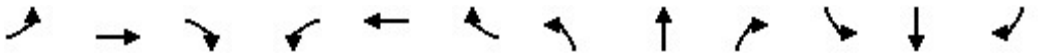
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.4	12.3	34.4	19
HCM LOS	B	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	49%	24%
Vol Thru, %	78%	55%	1%	75%
Vol Right, %	21%	18%	49%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	522	11	144	368
LT Vol	3	3	71	88
Through Vol	409	6	2	277
RT Vol	110	2	71	3
Lane Flow Rate	629	13	173	443
Geometry Grp	1	1	1	1
Degree of Util (X)	0.886	0.026	0.307	0.671
Departure Headway (Hd)	5.07	7.159	6.362	5.447
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	503	562	661
Service Time	3.116	5.159	4.428	3.499
HCM Lane V/C Ratio	0.885	0.026	0.308	0.67
HCM Control Delay	34.4	10.4	12.3	19
HCM Lane LOS	D	B	B	C
HCM 95th-tile Q	11.1	0.1	1.3	5.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	214	1	4	153	0	1	0	2	1	0	0
Future Volume (vph)	0	214	1	4	153	0	1	0	2	1	0	0
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)	0	233	1	4	166	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	234	0	0	170	0	0	3	0	0	1	0

Intersection Summary

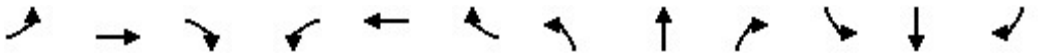
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	214	1	4	153	0	1	0	2	1	0	0
Future Vol, veh/h	0	214	1	4	153	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	233	1	4	166	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	234	0	0	408	408	234	409	408	166
Stage 1	-	-	-	-	-	-	234	234	-	174	174	-
Stage 2	-	-	-	-	-	-	174	174	-	235	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1412	-	-	1333	-	-	554	533	805	553	533	878
Stage 1	-	-	-	-	-	-	769	711	-	828	755	-
Stage 2	-	-	-	-	-	-	828	755	-	768	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1333	-	-	553	531	805	550	531	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	531	-	550	531	-
Stage 1	-	-	-	-	-	-	769	711	-	828	753	-
Stage 2	-	-	-	-	-	-	826	753	-	766	711	-

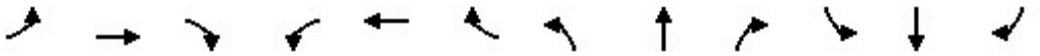
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.2	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1412	-	-	1333	-	-	550
HCM Lane V/C Ratio	0.005	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	10.2	0	-	-	7.7	0	-	11.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.961				0.850		0.988	0.850
Flt Protected		0.992			0.999						0.956	
Satd. Flow (prot)	0	1749	0	0	1694	0	0	1765	1500	0	1583	1425
Flt Permitted		0.992			0.999						0.956	
Satd. Flow (perm)	0	1749	0	0	1694	0	0	1765	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	37	179	1	4	129	54	0	0	1	32	0	26
Future Volume (vph)	37	179	1	4	129	54	0	0	1	32	0	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	39	188	1	4	136	57	0	0	1	34	0	27
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	228	0	0	197	0	0	0	1	0	37	24

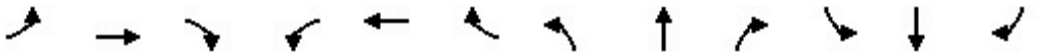
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	179	1	4	129	54	0	0	1	32	0	26
Future Vol, veh/h	37	179	1	4	129	54	0	0	1	32	0	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	188	1	4	136	57	0	0	1	34	0	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

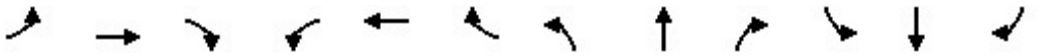
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9	8.4	7.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	17%	2%	92%	0%
Vol Thru, %	100%	0%	82%	69%	0%	0%
Vol Right, %	0%	100%	0%	29%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	217	187	35	23
LT Vol	0	0	37	4	32	0
Through Vol	0	0	179	129	0	0
RT Vol	0	1	1	54	3	23
Lane Flow Rate	0	1	228	197	36	25
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.275	0.228	0.059	0.033
Departure Headway (Hd)	5.543	4.836	4.327	4.167	5.871	4.752
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	740	834	864	611	754
Service Time	3.273	2.565	2.341	2.181	3.596	2.477
HCM Lane V/C Ratio	0	0.001	0.273	0.228	0.059	0.033
HCM Control Delay	8.3	7.6	9	8.4	9	7.6
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	1.1	0.9	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.973			0.952			0.992	
Flt Protected		0.999			0.999			0.986			0.958	
Satd. Flow (prot)	0	1759	0	0	1715	0	0	1656	0	0	1677	0
Flt Permitted		0.999			0.999			0.986			0.958	
Satd. Flow (perm)	0	1759	0	0	1715	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	196	3	3	174	45	3	4	4	48	3	3
Future Volume (vph)	6	196	3	3	174	45	3	4	4	48	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	258	4	4	229	59	4	5	5	63	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	270	0	0	292	0	0	14	0	0	71	0

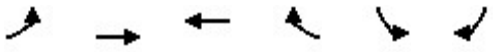
Intersection Summary

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	196	3	3	174	45	3	4	4	48	3	3
Future Vol, veh/h	6	196	3	3	174	45	3	4	4	48	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	258	4	4	229	59	4	5	5	63	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

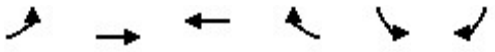
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9.7	8.3	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	3%	1%	89%
Vol Thru, %	36%	96%	78%	6%
Vol Right, %	36%	1%	20%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	205	222	54
LT Vol	3	6	3	48
Through Vol	4	196	174	3
RT Vol	4	3	45	3
Lane Flow Rate	14	270	292	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.021	0.334	0.351	0.105
Departure Headway (Hd)	5.11	4.461	4.331	5.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	698	807	830	671
Service Time	3.161	2.489	2.357	3.368
HCM Lane V/C Ratio	0.02	0.335	0.352	0.106
HCM Control Delay	8.3	9.7	9.7	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.5	1.6	0.4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	245	221	0	0	0
Future Volume (vph)	0	245	221	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	318	287	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	318	287	0	0	0

Intersection Summary

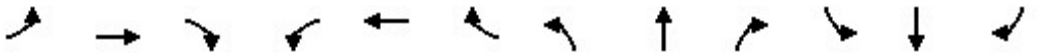
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	245	221	0	0	0
Future Vol, veh/h	0	245	221	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	318	287	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	287	0	-	0	605	287
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1275	-	-	-	461	752
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	461	752
Mov Cap-2 Maneuver	-	-	-	-	461	-
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	738	-

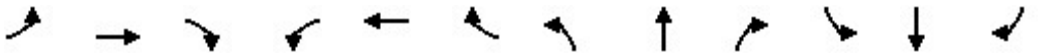
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	242	1	1	217	3	2	0	1	1	0	0
Future Volume (vph)	1	242	1	1	217	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	310	1	1	278	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	0	0	283	0	0	4	0	0	1	0

Intersection Summary

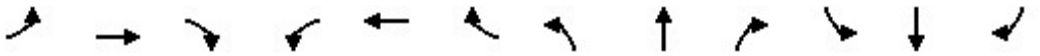
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	242	1	1	217	3	2	0	1	1	0	0
Future Vol, veh/h	1	242	1	1	217	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	310	1	1	278	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	282	0	0	311	0	0	595	597	311	595	595	280
Stage 1	-	-	-	-	-	-	313	313	-	282	282	-
Stage 2	-	-	-	-	-	-	282	284	-	313	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1280	-	-	1249	-	-	416	416	729	416	417	759
Stage 1	-	-	-	-	-	-	698	657	-	725	678	-
Stage 2	-	-	-	-	-	-	725	676	-	698	657	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1280	-	-	1249	-	-	415	415	729	415	416	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	415	415	-	415	416	-
Stage 1	-	-	-	-	-	-	697	656	-	724	677	-
Stage 2	-	-	-	-	-	-	724	675	-	696	656	-

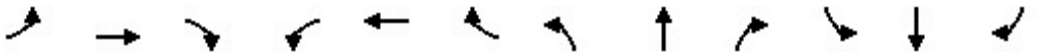
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.5	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	1280	-	-	1249	-	-	415
HCM Lane V/C Ratio	0.008	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	12.5	7.8	0	-	7.9	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.887			0.865	
Flt Protected					0.999			0.992				
Satd. Flow (prot)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Flt Permitted					0.999			0.992				
Satd. Flow (perm)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	242	2	6	218	3	1	0	4	0	0	1
Future Volume (vph)	1	242	2	6	218	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	303	3	8	273	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	285	0	0	6	0	0	1	0

Intersection Summary

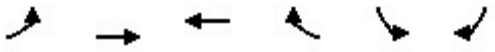
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	242	2	6	218	3	1	0	4	0	0	1
Future Vol, veh/h	1	242	2	6	218	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	303	3	8	273	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	306	0	0	599	600	305	600	599	275
Stage 1	-	-	-	-	-	-	307	307	-	291	291	-
Stage 2	-	-	-	-	-	-	292	293	-	309	308	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1286	-	-	1255	-	-	413	415	735	413	415	764
Stage 1	-	-	-	-	-	-	703	661	-	717	672	-
Stage 2	-	-	-	-	-	-	716	670	-	701	660	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1286	-	-	1255	-	-	410	411	735	407	411	764
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	411	-	407	411	-
Stage 1	-	-	-	-	-	-	702	660	-	716	667	-
Stage 2	-	-	-	-	-	-	709	665	-	696	659	-

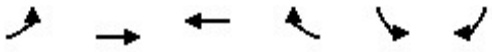
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.7	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	634	1286	-	-	1255	-	-	764
HCM Lane V/C Ratio	0.01	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	10.7	7.8	0	-	7.9	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.914	
Flt Protected		0.995			0.982	
Satd. Flow (prot)	0	1756	1751	0	1584	0
Flt Permitted		0.995			0.982	
Satd. Flow (perm)	0	1756	1751	0	1584	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	22	224	217	14	9	15
Future Volume (vph)	22	224	217	14	9	15
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	28	280	271	18	11	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	308	289	0	30	0

Intersection Summary

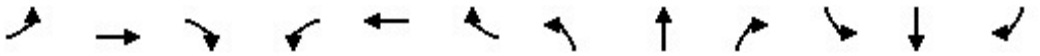
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	224	217	14	9	15
Future Vol, veh/h	22	224	217	14	9	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	280	271	18	11	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	289	0	-	0	616	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	336	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1273	-	-	-	454	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	724	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1273	-	-	-	442	759
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	724	-

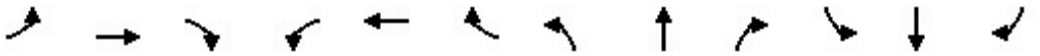
Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1273	-	-	-	598
HCM Lane V/C Ratio	0.022	-	-	-	0.05
HCM Control Delay (s)	7.9	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.993			0.865			0.919	
Flt Protected		0.996			0.999						0.980	
Satd. Flow (prot)	0	1758	0	0	1751	0	0	1526	0	0	1589	0
Flt Permitted		0.996			0.999						0.980	
Satd. Flow (perm)	0	1758	0	0	1751	0	0	1526	0	0	1589	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			181	
Travel Time (s)		15.1			16.5			6.0			4.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	210	0	2	218	13	0	0	2	8	0	12
Future Volume (vph)	20	210	0	2	218	13	0	0	2	8	0	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	25	263	0	3	273	16	0	0	3	10	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	288	0	0	292	0	0	3	0	0	25	0

Intersection Summary

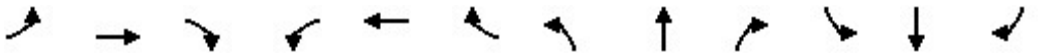
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	20	210	0	2	218	13	0	0	2	8	0	12
Future Vol, veh/h	20	210	0	2	218	13	0	0	2	8	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	263	0	3	273	16	0	0	3	10	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	289	0	0	263	0	0	608	608	263	602	600	281
Stage 1	-	-	-	-	-	-	313	313	-	287	287	-
Stage 2	-	-	-	-	-	-	295	295	-	315	313	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1273	-	-	1301	-	-	408	410	776	412	415	758
Stage 1	-	-	-	-	-	-	698	657	-	720	674	-
Stage 2	-	-	-	-	-	-	713	669	-	696	657	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1273	-	-	1301	-	-	392	399	776	403	404	758
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	399	-	403	404	-
Stage 1	-	-	-	-	-	-	682	642	-	703	672	-
Stage 2	-	-	-	-	-	-	697	667	-	678	642	-

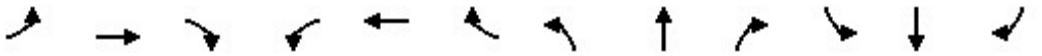
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.7	11.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	776	1273	-	-	1301	-	-	561
HCM Lane V/C Ratio	0.003	0.02	-	-	0.002	-	-	0.045
HCM Control Delay (s)	9.7	7.9	0	-	7.8	0	-	11.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969			0.982			0.984			0.960	
Flt Protected		0.988			0.994			0.987			0.995	
Satd. Flow (prot)	0	1783	0	0	1818	0	0	1809	0	0	1779	0
Flt Permitted		0.988			0.994			0.987			0.995	
Satd. Flow (perm)	0	1783	0	0	1818	0	0	1809	0	0	1779	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	62	138	59	21	125	22	54	128	25	22	130	64
Future Volume (vph)	62	138	59	21	125	22	54	128	25	22	130	64
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)	70	157	67	24	142	25	61	145	28	25	148	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	294	0	0	191	0	0	234	0	0	246	0

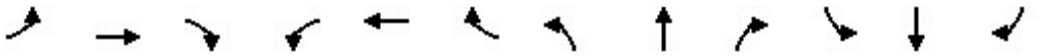
Intersection Summary

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	138	59	21	125	22	54	128	25	22	130	64
Future Vol, veh/h	62	138	59	21	125	22	54	128	25	22	130	64
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	157	67	24	142	25	61	145	28	25	148	73
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

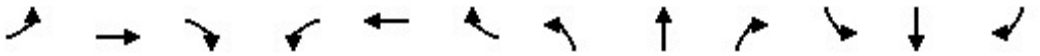
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.2	11.4	12.2	12.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	24%	12%	10%
Vol Thru, %	62%	53%	74%	60%
Vol Right, %	12%	23%	13%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	259	168	216
LT Vol	54	62	21	22
Through Vol	128	138	125	130
RT Vol	25	59	22	64
Lane Flow Rate	235	294	191	245
Geometry Grp	1	1	1	1
Degree of Util (X)	0.375	0.454	0.306	0.381
Departure Headway (Hd)	5.732	5.557	5.776	5.585
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	623	645	619	641
Service Time	3.802	3.625	3.853	3.655
HCM Lane V/C Ratio	0.377	0.456	0.309	0.382
HCM Control Delay	12.2	13.2	11.4	12.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.7	2.4	1.3	1.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			342			1323			218	
Travel Time (s)		5.9			7.8			30.1			5.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
Future Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
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)	0	0	0	22	0	0	0	0	36	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	22	0	0	36	0	0	0	0

Intersection Summary

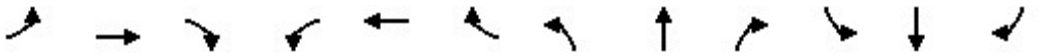
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Future Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	0	0	0	0	36	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	19	37	1	19	19	18	1	0	0	36	0	0
Stage 1	1	1	-	18	18	-	-	-	-	-	-	-
Stage 2	18	36	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Mov Cap-2 Maneuver	995	855	-	995	875	-	-	-	-	-	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-

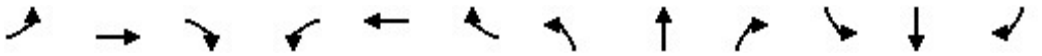
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	995	1575	-	-
HCM Lane V/C Ratio	-	-	-	-	0.022	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.962			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1698	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.583			0.744			0.950			0.950		
Satd. Flow (perm)	972	1698	0	1240	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			184				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



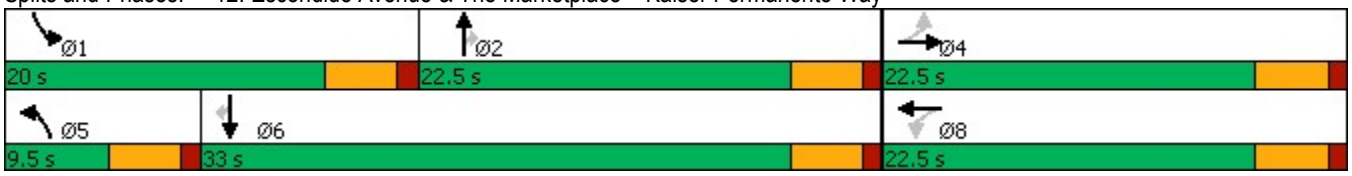
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	76	15	5	164	5	182	3	653	151	304	851	37
Future Volume (vph)	76	15	5	164	5	182	3	653	151	304	851	37
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	77	15	5	166	5	184	3	660	153	307	860	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	20	0	166	189	0	3	660	153	307	860	37

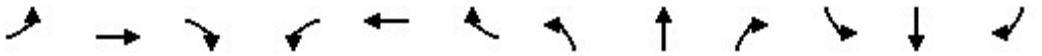
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	76	15	164	5	3	653	151	304	851	37
Future Volume (vph)	76	15	164	5	3	653	151	304	851	37
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.6	12.6	12.6	12.6	5.1	16.0	16.0	14.4	33.3	33.3
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.28	0.28	0.25	0.59	0.59
v/c Ratio	0.36	0.05	0.61	0.40	0.02	0.70	0.28	0.77	0.44	0.04
Control Delay	24.6	15.8	30.8	6.6	27.7	23.7	4.2	37.0	8.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	15.8	30.8	6.6	27.7	23.7	4.2	37.0	8.8	0.1
LOS	C	B	C	A	C	C	A	D	A	A
Approach Delay		22.7		17.9		20.0			15.8	
Approach LOS		C		B		C			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 56.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 69.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

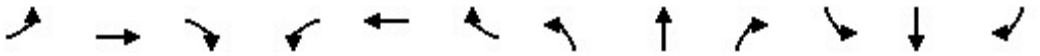




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	15	5	164	5	182	3	653	151	304	851	37
Future Volume (veh/h)	76	15	5	164	5	182	3	653	151	304	851	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	77	15	5	166	5	184	3	660	153	307	860	37
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	280	93	424	9	324	7	930	415	365	1688	753
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.28	0.28	0.23	0.50	0.50
Sat Flow, veh/h	1128	1272	424	1315	40	1468	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	77	0	20	166	0	189	3	660	153	307	860	37
Grp Sat Flow(s),veh/h/ln	1128	0	1696	1315	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	3.2	0.0	0.5	5.6	0.0	5.5	0.1	8.7	4.0	9.1	8.4	0.6
Cycle Q Clear(g_c), s	8.7	0.0	0.5	6.1	0.0	5.5	0.1	8.7	4.0	9.1	8.4	0.6
Prop In Lane	1.00		0.25	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	0	374	424	0	332	7	930	415	365	1688	753
V/C Ratio(X)	0.29	0.00	0.05	0.39	0.00	0.57	0.46	0.71	0.37	0.84	0.51	0.05
Avail Cap(c_a), veh/h	432	0	620	615	0	551	162	1231	549	502	1948	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	15.1	17.5	0.0	17.1	24.5	16.0	14.4	18.1	8.2	6.3
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.6	0.0	1.5	43.4	1.3	0.5	9.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	1.6	0.0	1.8	0.1	3.0	1.3	3.8	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	15.2	18.1	0.0	18.6	67.8	17.3	14.9	27.2	8.5	6.3
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		97			355			816			1204	
Approach Delay, s/veh		20.3			18.4			17.0			13.2	
Approach LOS		C			B			B			B	

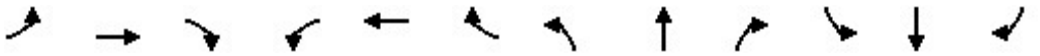
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.8	18.1		15.4	4.7	29.2		15.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	11.1	10.7		10.7	2.1	10.4		8.1				
Green Ext Time (p_c), s	0.4	2.9		0.2	0.0	6.0		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.5									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			552			182			117		150	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



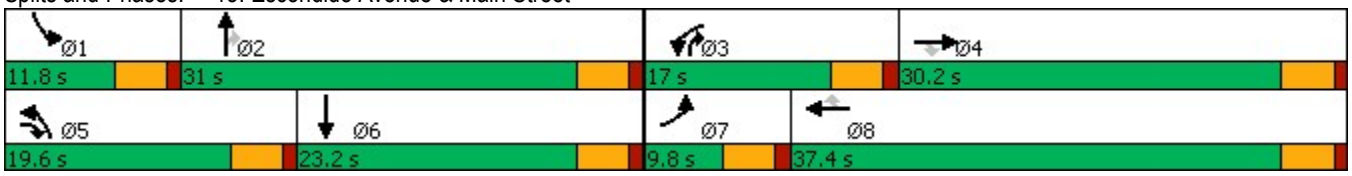
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	1369	640	382	1031	12	465	202	296	45	54	211
Future Volume (vph)	53	1369	640	382	1031	12	465	202	296	45	54	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	54	1397	653	390	1052	12	474	206	302	46	55	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1397	653	390	1052	12	474	206	302	46	270	0

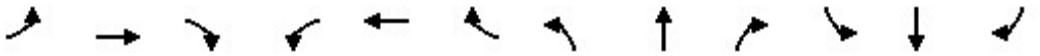
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	1369	640	382	1031	12	465	202	296	45	54
Future Volume (vph)	53	1369	640	382	1031	12	465	202	296	45	54
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.2	19.6	17.0	37.4	37.4	19.6	31.0	17.0	11.8	23.2
Total Split (%)	10.9%	33.6%	21.8%	18.9%	41.6%	41.6%	21.8%	34.4%	18.9%	13.1%	25.8%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	25.8	45.4	12.5	35.1	35.1	15.1	24.9	42.0	6.8	12.1
Actuated g/C Ratio	0.06	0.31	0.54	0.15	0.42	0.42	0.18	0.30	0.50	0.08	0.14
v/c Ratio	0.54	0.94	0.61	0.90	0.75	0.02	0.90	0.39	0.37	0.36	0.77
Control Delay	60.7	42.8	5.2	61.9	26.5	0.0	57.8	27.3	9.9	46.1	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	42.8	5.2	61.9	26.5	0.0	57.8	27.3	9.9	46.1	30.1
LOS	E	D	A	E	C	A	E	C	A	D	C
Approach Delay		31.6			35.8			36.7			32.4
Approach LOS		C			D			D			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 83.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 34.0	Intersection LOS: C
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1369	640	382	1031	12	465	202	296	45	54	211
Future Volume (veh/h)	53	1369	640	382	1031	12	465	202	296	45	54	211
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	54	1397	653	390	1052	12	474	206	302	46	55	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1403	691	411	1312	585	496	580	704	61	62	241
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.17	0.33	0.33	0.04	0.20	0.20
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	316	1234
Grp Volume(v), veh/h	54	1397	653	390	1052	12	474	206	302	46	0	270
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1550
Q Serve(g_s), s	3.0	25.5	25.7	11.8	24.6	0.4	14.3	7.8	11.9	2.5	0.0	15.0
Cycle Q Clear(g_c), s	3.0	25.5	25.7	11.8	24.6	0.4	14.3	7.8	11.9	2.5	0.0	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	66	1403	691	411	1312	585	496	580	704	61	0	303
V/C Ratio(X)	0.82	1.00	0.94	0.95	0.80	0.02	0.96	0.35	0.43	0.75	0.00	0.89
Avail Cap(c_a), veh/h	95	1403	691	411	1312	585	496	580	704	131	0	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	31.4	22.8	37.7	24.0	16.6	36.4	22.7	15.7	42.2	0.0	34.7
Incr Delay (d2), s/veh	28.8	22.9	21.6	31.8	3.7	0.0	29.4	0.4	0.4	17.0	0.0	23.9
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	1.7	12.5	16.1	5.9	9.9	0.1	7.0	3.2	3.9	1.3	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	54.3	44.5	69.6	27.7	16.7	65.9	23.0	16.1	59.2	0.0	58.6
LnGrp LOS	E	D	D	E	C	B	E	C	B	E	A	E
Approach Vol, veh/h		2104			1454			982			316	
Approach Delay, s/veh		51.7			38.8			41.6			58.7	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	33.5	17.0	30.2	19.6	21.8	8.2	39.0
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	7.3	26.5	12.5	25.7	15.1	18.7	5.3	32.9
Max Q Clear Time (g_c+I1), s	4.5	13.9	13.8	27.7	16.3	17.0	5.0	26.6
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	0.3	0.0	3.7

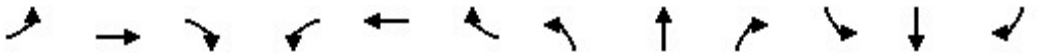
Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Notes

User approved changes to right turn type.

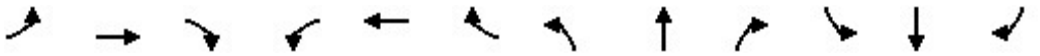
Appendix H

Project Opening Year (2023) With Project Conditions – Improvements
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.974				0.850			
Flt Protected		0.994			0.962					0.950		
Satd. Flow (prot)	0	1651	0	0	1654	0	0	1765	1500	1676	1765	0
Flt Permitted		0.994			0.962					0.950		
Satd. Flow (perm)	0	1651	0	0	1654	0	0	1765	1500	1676	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	300	8	75	0	361	110	36	472	1
Future Volume (vph)	2	6	6	300	8	75	0	361	110	36	472	1
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)	2	7	7	341	9	85	0	410	125	41	536	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	435	0	0	410	125	41	537	0

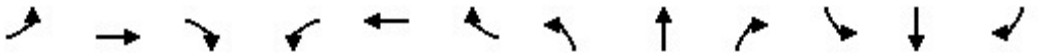
Intersection Summary

Intersection	
Intersection Delay, s/veh	54.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	300	8	75	0	361	110	36	472	1
Future Vol, veh/h	2	6	6	300	8	75	0	361	110	36	472	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	341	9	85	0	410	125	41	536	1
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

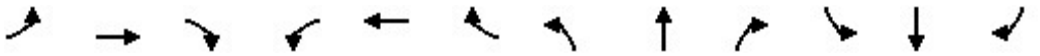
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12.4	37.5	31.1	89.9
HCM LOS	B	E	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	14%	78%	100%	0%
Vol Thru, %	100%	0%	43%	2%	0%	100%
Vol Right, %	0%	100%	43%	20%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	110	14	383	36	473
LT Vol	0	0	2	300	36	0
Through Vol	361	0	6	8	0	472
RT Vol	0	110	6	75	0	1
Lane Flow Rate	410	125	16	435	41	538
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.826	0.227	0.038	0.838	0.089	1.097
Departure Headway (Hd)	7.585	6.861	9.052	7.235	7.866	7.349
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	480	526	398	505	458	500
Service Time	5.285	4.561	7.052	5.235	5.566	5.049
HCM Lane V/C Ratio	0.854	0.238	0.04	0.861	0.09	1.076
HCM Control Delay	37.1	11.6	12.4	37.5	11.3	95.9
HCM Lane LOS	E	B	B	E	B	F
HCM 95th-tile Q	8	0.9	0.1	8.4	0.3	17.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.933				0.850		0.998	
Flt Protected		0.985			0.976					0.950		
Satd. Flow (prot)	0	1702	0	0	1607	0	0	1765	1500	1676	1761	0
Flt Permitted		0.985			0.976					0.950		
Satd. Flow (perm)	0	1702	0	0	1607	0	0	1765	1500	1676	1761	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	71	2	71	3	409	110	88	277	3
Future Volume (vph)	3	6	2	71	2	71	3	409	110	88	277	3
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)	4	7	2	86	2	86	4	493	133	106	334	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	174	0	0	497	133	106	338	0

Intersection Summary

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

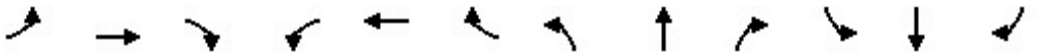
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	71	2	71	3	409	110	88	277	3
Future Vol, veh/h	3	6	2	71	2	71	3	409	110	88	277	3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	86	2	86	4	493	133	106	334	4
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.1	11.9	22.8	14.5
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	0%	27%	49%	100%	0%
Vol Thru, %	99%	0%	55%	1%	0%	99%
Vol Right, %	0%	100%	18%	49%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	412	110	11	144	88	280
LT Vol	3	0	3	71	88	0
Through Vol	409	0	6	2	0	277
RT Vol	0	110	2	71	0	3
Lane Flow Rate	496	133	13	173	106	337
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.789	0.184	0.025	0.299	0.189	0.552
Departure Headway (Hd)	5.724	5.011	6.886	6.212	6.406	5.891
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	716	518	578	560	611
Service Time	3.458	2.746	4.956	4.261	4.145	3.63
HCM Lane V/C Ratio	0.787	0.186	0.025	0.299	0.189	0.552
HCM Control Delay	26.5	8.9	10.1	11.9	10.6	15.7
HCM Lane LOS	D	A	B	B	B	C
HCM 95th-tile Q	7.7	0.7	0.1	1.2	0.7	3.4

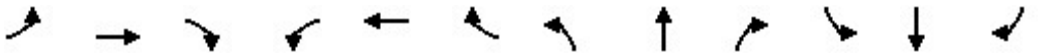
Appendix I

Project Opening Year (2023) With Cumulative Projects
Without Project Conditions
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.971			0.972				
Flt Protected		0.994			0.963						0.996	
Satd. Flow (prot)	0	1651	0	0	1650	0	0	1715	0	0	1758	0
Flt Permitted		0.994			0.963						0.996	
Satd. Flow (perm)	0	1651	0	0	1650	0	0	1715	0	0	1758	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	285	8	79	0	397	105	37	484	1
Future Volume (vph)	2	6	6	285	8	79	0	397	105	37	484	1
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)	2	7	7	324	9	90	0	451	119	42	550	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	423	0	0	570	0	0	593	0

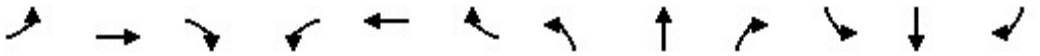
Intersection Summary

Intersection	
Intersection Delay, s/veh	74.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	285	8	79	0	397	105	37	484	1
Future Vol, veh/h	2	6	6	285	8	79	0	397	105	37	484	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	324	9	90	0	451	119	42	550	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

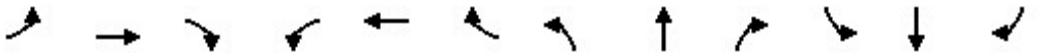
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.9	38.4	75.5	100.2
HCM LOS	B	E	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	77%	7%
Vol Thru, %	79%	43%	2%	93%
Vol Right, %	21%	43%	21%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	502	14	372	522
LT Vol	0	2	285	37
Through Vol	397	6	8	484
RT Vol	105	6	79	1
Lane Flow Rate	570	16	423	593
Geometry Grp	1	1	1	1
Degree of Util (X)	1.037	0.04	0.837	1.115
Departure Headway (Hd)	6.893	9.524	7.497	6.939
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	531	378	486	528
Service Time	4.893	7.524	5.497	4.939
HCM Lane V/C Ratio	1.073	0.042	0.87	1.123
HCM Control Delay	75.5	12.9	38.4	100.2
HCM Lane LOS	F	B	E	F
HCM 95th-tile Q	15.5	0.1	8.3	18.9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	147	0	2	362	1	4	2	6	1	1	3
Future Volume (vph)	1	147	0	2	362	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	184	0	3	453	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	185	0	0	457	0	0	16	0	0	6	0

Intersection Summary

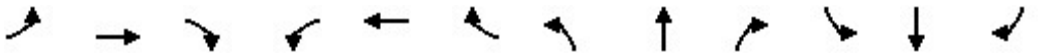
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	147	0	2	362	1	4	2	6	1	1	3
Future Vol, veh/h	1	147	0	2	362	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	184	0	3	453	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	454	0	0	184	0	0	648	646	184	652	646	454
Stage 1	-	-	-	-	-	-	186	186	-	460	460	-
Stage 2	-	-	-	-	-	-	462	460	-	192	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1107	-	-	1391	-	-	383	390	858	381	390	606
Stage 1	-	-	-	-	-	-	816	746	-	581	566	-
Stage 2	-	-	-	-	-	-	580	566	-	810	746	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1107	-	-	1391	-	-	378	388	858	375	388	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	388	-	375	388	-
Stage 1	-	-	-	-	-	-	815	745	-	580	564	-
Stage 2	-	-	-	-	-	-	573	564	-	799	745	-

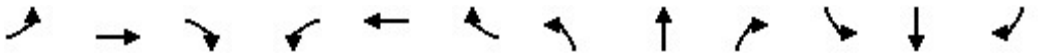
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1107	-	-	1391	-	-	490
HCM Lane V/C Ratio	0.028	0.001	-	-	0.002	-	-	0.013
HCM Control Delay (s)	12	8.3	0	-	7.6	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.941				0.850		0.988	0.850
Flt Protected		0.995			0.999			0.950			0.956	
Satd. Flow (prot)	0	1754	0	0	1659	0	0	1676	1500	0	1583	1425
Flt Permitted		0.995			0.999			0.950			0.956	
Satd. Flow (perm)	0	1754	0	0	1659	0	0	1676	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	145	2	5	230	181	2	0	3	106	1	91
Future Volume (vph)	18	145	2	5	230	181	2	0	3	106	1	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	21	173	2	6	274	215	2	0	4	126	1	108
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	196	0	0	495	0	0	2	4	0	138	97

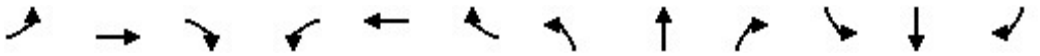
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	145	2	5	230	181	2	0	3	106	1	91
Future Vol, veh/h	18	145	2	5	230	181	2	0	3	106	1	91
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	173	2	6	274	215	2	0	4	126	1	108
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

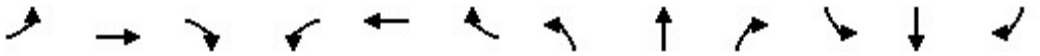
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.5	15.4	9.2	10.6
HCM LOS	B	C	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	11%	1%	91%	0%
Vol Thru, %	0%	0%	88%	55%	1%	0%
Vol Right, %	0%	100%	1%	44%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	165	416	116	82
LT Vol	2	0	18	5	106	0
Through Vol	0	0	145	230	1	0
RT Vol	0	3	2	181	9	82
Lane Flow Rate	2	4	196	495	138	98
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.289	0.632	0.255	0.15
Departure Headway (Hd)	7.201	5.973	5.293	4.594	6.648	5.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	499	601	682	778	543	651
Service Time	4.922	3.694	3.309	2.686	4.358	3.236
HCM Lane V/C Ratio	0.004	0.007	0.287	0.636	0.254	0.151
HCM Control Delay	10	8.7	10.5	15.4	11.6	9.2
HCM Lane LOS	A	A	B	C	B	A
HCM 95th-tile Q	0	0	1.2	4.6	1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.947			0.984			0.979	
Flt Protected		0.991			0.999			0.972			0.961	
Satd. Flow (prot)	0	1747	0	0	1670	0	0	1688	0	0	1660	0
Flt Permitted		0.991			0.999			0.972			0.961	
Satd. Flow (perm)	0	1747	0	0	1670	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	44	202	2	5	236	154	16	8	3	118	4	23
Future Volume (vph)	44	202	2	5	236	154	16	8	3	118	4	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	52	240	2	6	281	183	19	10	4	140	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	294	0	0	470	0	0	33	0	0	172	0

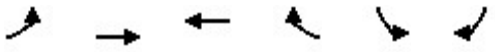
Intersection Summary

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	202	2	5	236	154	16	8	3	118	4	23
Future Vol, veh/h	44	202	2	5	236	154	16	8	3	118	4	23
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	240	2	6	281	183	19	10	4	140	5	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

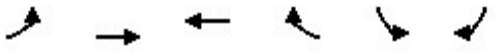
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.1	15.4	9.7	11.3
HCM LOS	B	C	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	18%	1%	81%
Vol Thru, %	30%	81%	60%	3%
Vol Right, %	11%	1%	39%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	248	395	145
LT Vol	16	44	5	118
Through Vol	8	202	236	4
RT Vol	3	2	154	23
Lane Flow Rate	32	295	470	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.427	0.625	0.284
Departure Headway (Hd)	6.247	5.208	4.781	5.923
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	571	691	762	606
Service Time	4.305	3.244	2.781	3.968
HCM Lane V/C Ratio	0.056	0.427	0.617	0.285
HCM Control Delay	9.7	12.1	15.4	11.3
HCM Lane LOS	A	B	C	B
HCM 95th-tile Q	0.2	2.1	4.4	1.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	319	395	0	1	0
Future Volume (vph)	0	319	395	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	347	429	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	347	429	0	1	0

Intersection Summary

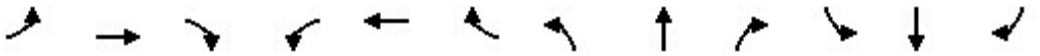
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	319	395	0	1	0
Future Vol, veh/h	0	319	395	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	347	429	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	429	0	-	0	776	429
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1130	-	-	-	366	626
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1130	-	-	-	366	626
Mov Cap-2 Maneuver	-	-	-	-	366	-
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	716	-

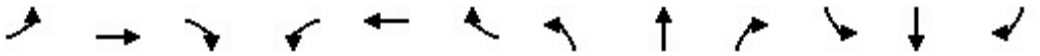
Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1130	-	-	-	366
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	14.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	315	3	0	386	2	4	0	1	1	0	2
Future Volume (vph)	3	315	3	0	386	2	4	0	1	1	0	2
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)	3	342	3	0	420	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	348	0	0	422	0	0	5	0	0	3	0

Intersection Summary

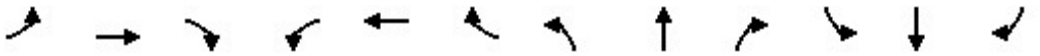
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	315	3	0	386	2	4	0	1	1	0	2
Future Vol, veh/h	3	315	3	0	386	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	342	3	0	420	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	345	0	0	772	772	344	771	772	421
Stage 1	-	-	-	-	-	-	350	350	-	421	421	-
Stage 2	-	-	-	-	-	-	422	422	-	350	351	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1137	-	-	1214	-	-	317	330	699	317	330	632
Stage 1	-	-	-	-	-	-	666	633	-	610	589	-
Stage 2	-	-	-	-	-	-	609	588	-	666	632	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1137	-	-	1214	-	-	315	329	699	316	329	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	315	329	-	316	329	-
Stage 1	-	-	-	-	-	-	664	631	-	608	589	-
Stage 2	-	-	-	-	-	-	607	588	-	663	630	-

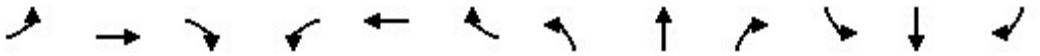
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.3	12.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	354	1137	-	-	1214	-	-	474
HCM Lane V/C Ratio	0.015	0.003	-	-	-	-	-	0.007
HCM Control Delay (s)	15.3	8.2	0	-	0	-	-	12.6
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	309	5	3	382	0	4	0	2	2	0	1
Future Volume (vph)	1	309	5	3	382	0	4	0	2	2	0	1
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)	1	336	5	3	415	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	0	0	418	0	0	6	0	0	3	0

Intersection Summary

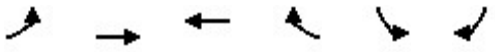
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	309	5	3	382	0	4	0	2	2	0	1
Future Vol, veh/h	1	309	5	3	382	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	336	5	3	415	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	415	0	0	341	0	0	763	762	339	763	764	415
Stage 1	-	-	-	-	-	-	341	341	-	421	421	-
Stage 2	-	-	-	-	-	-	422	421	-	342	343	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1144	-	-	1218	-	-	321	335	703	321	334	637
Stage 1	-	-	-	-	-	-	674	639	-	610	589	-
Stage 2	-	-	-	-	-	-	609	589	-	673	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1144	-	-	1218	-	-	319	334	703	319	333	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	319	334	-	319	333	-
Stage 1	-	-	-	-	-	-	673	638	-	609	587	-
Stage 2	-	-	-	-	-	-	606	587	-	670	636	-

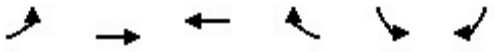
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.4	14.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	1144	-	-	1218	-	-	383
HCM Lane V/C Ratio	0.017	0.001	-	-	0.003	-	-	0.009
HCM Control Delay (s)	14.4	8.2	0	-	8	0	-	14.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1526	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1526	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	311	382	1	0	1
Future Volume (vph)	1	311	382	1	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	1	334	411	1	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	335	412	0	1	0

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	311	382	1	0	1
Future Vol, veh/h	1	311	382	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	334	411	1	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	748	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	336	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1147	-	-	-	380	640
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	724	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1147	-	-	-	380	640
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	724	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1147	-	-	-	640
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.1	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	1765	0	0	1765	1526	0
Flt Permitted						
Satd. Flow (perm)	1765	0	0	1765	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	313	0	0	384	0	1
Future Volume (vph)	313	0	0	384	0	1
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	337	0	0	413	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	337	0	0	413	1	0

Intersection Summary

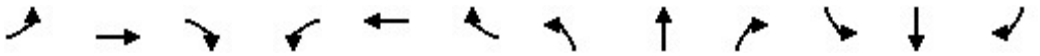
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	313	0	0	384	0	1
Future Vol, veh/h	313	0	0	384	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	337	0	0	413	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	337	0	750	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	413	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1222	-	379	705
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	668	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1222	-	379	705
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	668	-

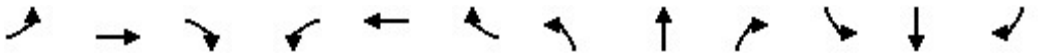
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	705	-	-	1222	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.971			0.996			0.981			0.934	
Flt Protected		0.990			0.994			0.975			0.998	
Satd. Flow (prot)	0	1791	0	0	1844	0	0	1782	0	0	1736	0
Flt Permitted		0.990			0.994			0.975			0.998	
Satd. Flow (perm)	0	1791	0	0	1844	0	0	1782	0	0	1736	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	73	211	78	27	198	6	117	79	32	6	83	85
Future Volume (vph)	73	211	78	27	198	6	117	79	32	6	83	85
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)	79	229	85	29	215	7	127	86	35	7	90	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	393	0	0	251	0	0	248	0	0	189	0

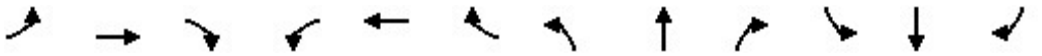
Intersection Summary

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	73	211	78	27	198	6	117	79	32	6	83	85
Future Vol, veh/h	73	211	78	27	198	6	117	79	32	6	83	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	229	85	29	215	7	127	86	35	7	90	92
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

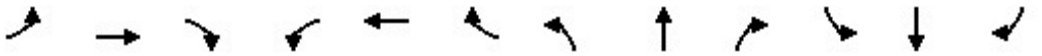
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.2	13.6	14.1	12.1
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	51%	20%	12%	3%
Vol Thru, %	35%	58%	86%	48%
Vol Right, %	14%	22%	3%	49%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	362	231	174
LT Vol	117	73	27	6
Through Vol	79	211	198	83
RT Vol	32	78	6	85
Lane Flow Rate	248	393	251	189
Geometry Grp	1	1	1	1
Degree of Util (X)	0.433	0.632	0.426	0.323
Departure Headway (Hd)	6.292	5.782	6.101	6.147
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	572	630	590	583
Service Time	4.343	3.782	4.147	4.202
HCM Lane V/C Ratio	0.434	0.624	0.425	0.324
HCM Control Delay	14.1	18.2	13.6	12.1
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	2.2	4.5	2.1	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.708			0.757			0.950			0.950		
Satd. Flow (perm)	1180	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					75				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



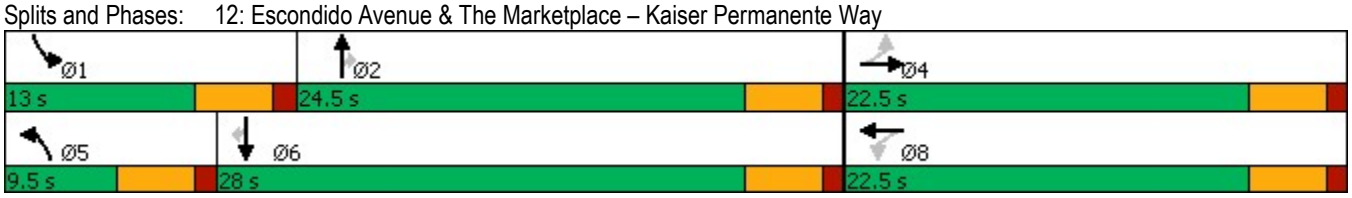
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	54	1	69	1	940	75	175	674	69
Future Volume (vph)	7	2	0	54	1	69	1	940	75	175	674	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	59	1	75	1	1022	82	190	733	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	59	76	0	1	1022	82	190	733	75

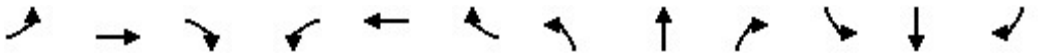
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	54	1	1	940	75	175	674	69
Future Volume (vph)	7	2	54	1	1	940	75	175	674	69
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.8	7.8	7.8	7.8	5.0	22.1	22.1	8.5	34.3	34.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.30	0.26	0.01	0.69	0.11	0.70	0.32	0.07
Control Delay	17.9	17.0	22.5	8.1	21.0	16.1	2.4	38.0	5.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.5	8.1	21.0	16.1	2.4	38.0	5.8	1.4
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.4		15.1			11.6	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 49.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

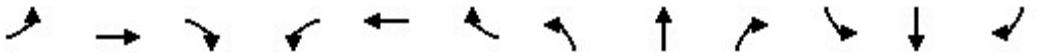




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	54	1	69	1	940	75	175	674	69
Future Volume (veh/h)	7	2	0	54	1	69	1	940	75	175	674	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	59	1	75	1	1022	82	190	733	75
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	246	178	0	313	2	149	4	1394	622	235	1886	841
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.41	0.41	0.15	0.56	0.56
Sat Flow, veh/h	1250	1772	0	1336	20	1485	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	59	0	76	1	1022	82	190	733	75
Grp Sat Flow(s),veh/h/ln	1250	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.7	0.0	1.9	0.0	10.2	1.4	4.6	4.9	0.9
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.7	0.0	1.9	0.0	10.2	1.4	4.6	4.9	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	178	0	313	0	151	4	1394	622	235	1886	841
V/C Ratio(X)	0.03	0.01	0.00	0.19	0.00	0.50	0.25	0.73	0.13	0.81	0.39	0.09
Avail Cap(c_a), veh/h	684	799	0	782	0	679	200	1688	753	340	1983	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	16.2	0.0	16.9	0.0	17.0	19.9	9.8	7.2	16.5	4.9	4.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	2.6	29.9	1.3	0.1	9.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.5	0.0	0.7	0.0	2.9	0.3	2.0	1.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	16.2	0.0	17.2	0.0	19.6	49.8	11.2	7.3	25.5	5.1	4.1
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			135			1105			998	
Approach Delay, s/veh		17.7			18.6			10.9			8.9	
Approach LOS		B			B			B			A	

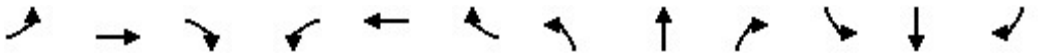
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	21.0		8.5	4.6	26.8		8.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.6	12.2		4.2	2.0	6.9		3.9				
Green Ext Time (p_c), s	0.1	4.3		0.0	0.0	4.9		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.5	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.872	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1539	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			520			182			211		85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



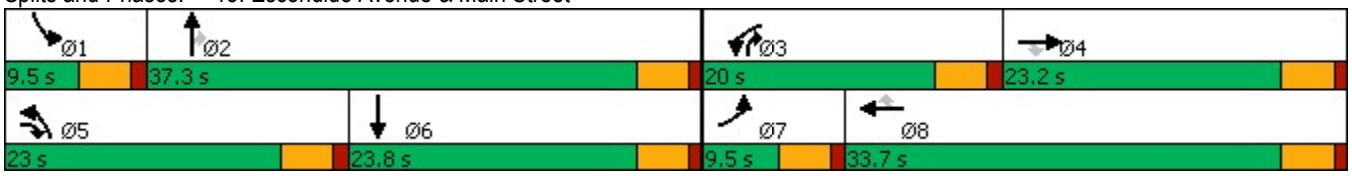
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	864	473	410	858	5	540	103	371	4	14	77
Future Volume (vph)	7	864	473	410	858	5	540	103	371	4	14	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	949	520	451	943	5	593	113	408	4	15	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	949	520	451	943	5	593	113	408	4	100	0

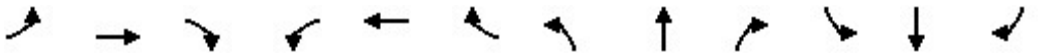
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	864	473	410	858	5	540	103	371	4	14
Future Volume (vph)	7	864	473	410	858	5	540	103	371	4	14
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.2	23.0	20.0	33.7	33.7	23.0	37.3	20.0	9.5	23.8
Total Split (%)	10.6%	25.8%	25.6%	22.2%	37.4%	37.4%	25.6%	41.4%	22.2%	10.6%	26.4%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.7	41.7	15.2	36.6	36.6	18.5	28.3	48.0	5.0	7.1
Actuated g/C Ratio	0.06	0.24	0.54	0.20	0.47	0.47	0.24	0.37	0.62	0.06	0.09
v/c Ratio	0.08	0.82	0.50	0.80	0.60	0.01	0.86	0.18	0.40	0.04	0.46
Control Delay	37.1	35.2	2.9	42.2	18.1	0.0	43.3	18.8	5.1	36.2	17.9
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	37.1	35.2	2.9	42.2	18.1	0.0	43.3	18.8	5.1	36.2	17.9
LOS	D	D	A	D	B	A	D	B	A	D	B
Approach Delay		23.8			25.8			26.8			18.6
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 77.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





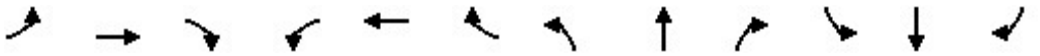
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	864	473	410	858	5	540	103	371	4	14	77
Future Volume (veh/h)	7	864	473	410	858	5	540	103	371	4	14	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	949	520	451	943	5	593	113	408	4	15	85
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1214	723	531	1425	636	670	566	754	8	22	124
Arrive On Green	0.01	0.25	0.25	0.18	0.42	0.42	0.23	0.32	0.32	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	231	1306
Grp Volume(v), veh/h	8	949	520	451	943	5	593	113	408	4	0	100
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1537
Q Serve(g_s), s	0.4	13.6	18.7	11.2	16.7	0.1	14.7	3.5	13.8	0.2	0.0	4.7
Cycle Q Clear(g_c), s	0.4	13.6	18.7	11.2	16.7	0.1	14.7	3.5	13.8	0.2	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	16	1214	723	531	1425	636	670	566	754	8	0	145
V/C Ratio(X)	0.49	0.78	0.72	0.85	0.66	0.01	0.88	0.20	0.54	0.47	0.00	0.69
Avail Cap(c_a), veh/h	107	1214	723	605	1425	636	722	780	935	107	0	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	26.0	15.3	29.5	17.2	12.4	27.7	18.4	12.7	37.0	0.0	32.7
Incr Delay (d2), s/veh	21.0	3.4	3.5	10.0	1.2	0.0	12.0	0.2	0.6	35.4	0.0	5.7
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	0.2	5.4	6.9	4.5	6.1	0.0	6.0	1.4	4.3	0.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	29.4	18.8	39.4	18.4	12.4	39.7	18.6	13.3	72.4	0.0	38.3
LnGrp LOS	E	C	B	D	B	B	D	B	B	E	A	D
Approach Vol, veh/h		1477			1399			1114			104	
Approach Delay, s/veh		25.8			25.1			27.9			39.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	28.3	18.1	23.2	21.7	11.6	5.3	36.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	32.8	15.5	18.7	18.5	19.3	5.0	29.2
Max Q Clear Time (g_c+I1), s	2.2	15.8	13.2	20.7	16.7	6.7	2.4	18.7
Green Ext Time (p_c), s	0.0	2.0	0.4	0.0	0.5	0.4	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

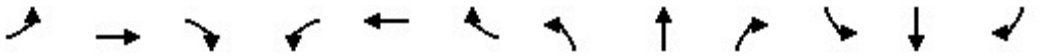
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.927			0.976			0.999	
Flt Protected		0.985			0.978						0.989	
Satd. Flow (prot)	0	1702	0	0	1600	0	0	1722	0	0	1744	0
Flt Permitted		0.985			0.978						0.989	
Satd. Flow (perm)	0	1702	0	0	1600	0	0	1722	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	61	2	73	3	433	93	92	317	3
Future Volume (vph)	3	6	2	61	2	73	3	433	93	92	317	3
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)	4	7	2	73	2	88	4	522	112	111	382	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	163	0	0	638	0	0	497	0

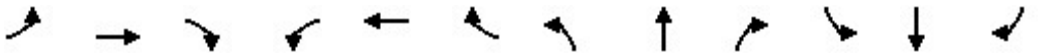
Intersection Summary

Intersection	
Intersection Delay, s/veh	29
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	61	2	73	3	433	93	92	317	3
Future Vol, veh/h	3	6	2	61	2	73	3	433	93	92	317	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	73	2	88	4	522	112	111	382	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

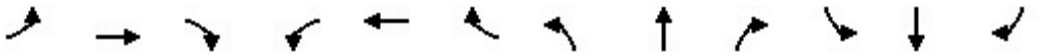
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.5	12.2	38.3	23.1
HCM LOS	B	B	E	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	45%	22%
Vol Thru, %	82%	55%	1%	77%
Vol Right, %	18%	18%	54%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	529	11	136	412
LT Vol	3	3	61	92
Through Vol	433	6	2	317
RT Vol	93	2	73	3
Lane Flow Rate	637	13	164	496
Geometry Grp	1	1	1	1
Degree of Util (X)	0.91	0.027	0.294	0.75
Departure Headway (Hd)	5.138	7.311	6.464	5.437
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	701	493	554	665
Service Time	3.188	5.311	4.538	3.491
HCM Lane V/C Ratio	0.909	0.026	0.296	0.746
HCM Control Delay	38.3	10.5	12.2	23.1
HCM Lane LOS	E	B	B	C
HCM 95th-tile Q	12	0.1	1.2	6.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	201	1	4	146	0	1	0	2	1	0	0
Future Volume (vph)	0	201	1	4	146	0	1	0	2	1	0	0
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)	0	218	1	4	159	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	219	0	0	163	0	0	3	0	0	1	0

Intersection Summary

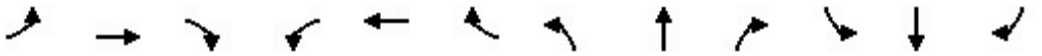
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	201	1	4	146	0	1	0	2	1	0	0
Future Vol, veh/h	0	201	1	4	146	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	218	1	4	159	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	219	0	0	386	386	219	387	386	159
Stage 1	-	-	-	-	-	-	219	219	-	167	167	-
Stage 2	-	-	-	-	-	-	167	167	-	220	219	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1350	-	-	573	548	821	572	548	886
Stage 1	-	-	-	-	-	-	783	722	-	835	760	-
Stage 2	-	-	-	-	-	-	835	760	-	782	722	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1420	-	-	1350	-	-	572	546	821	569	546	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	572	546	-	569	546	-
Stage 1	-	-	-	-	-	-	783	722	-	835	758	-
Stage 2	-	-	-	-	-	-	832	758	-	780	722	-

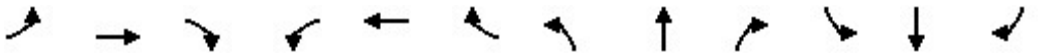
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	717	1420	-	-	1350	-	-	569
HCM Lane V/C Ratio	0.005	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	10	0	-	-	7.7	0	-	11.3
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.959				0.850		0.988	0.850
Flt Protected		0.991			0.999						0.956	
Satd. Flow (prot)	0	1747	0	0	1691	0	0	1765	1500	0	1583	1425
Flt Permitted		0.991			0.999						0.956	
Satd. Flow (perm)	0	1747	0	0	1691	0	0	1765	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	37	166	1	4	122	54	0	0	1	32	0	26
Future Volume (vph)	37	166	1	4	122	54	0	0	1	32	0	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	39	175	1	4	128	57	0	0	1	34	0	27
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	215	0	0	189	0	0	0	1	0	37	24

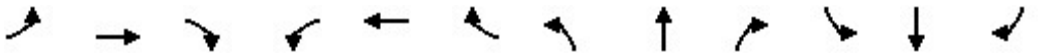
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	166	1	4	122	54	0	0	1	32	0	26
Future Vol, veh/h	37	166	1	4	122	54	0	0	1	32	0	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	175	1	4	128	57	0	0	1	34	0	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

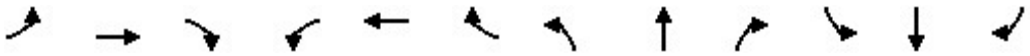
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.8	8.3	7.5	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	18%	2%	92%	0%
Vol Thru, %	100%	0%	81%	68%	0%	0%
Vol Right, %	0%	100%	0%	30%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	204	180	35	23
LT Vol	0	0	37	4	32	0
Through Vol	0	0	166	122	0	0
RT Vol	0	1	1	54	3	23
Lane Flow Rate	0	1	215	189	36	25
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.258	0.218	0.059	0.032
Departure Headway (Hd)	5.496	4.789	4.321	4.147	5.825	4.707
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	748	833	868	616	762
Service Time	3.221	2.514	2.332	2.158	3.547	2.428
HCM Lane V/C Ratio	0	0.001	0.258	0.218	0.058	0.033
HCM Control Delay	8.2	7.5	8.8	8.3	8.9	7.6
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	1	0.8	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.972			0.952			0.992	
Flt Protected		0.998			0.999			0.986			0.958	
Satd. Flow (prot)	0	1758	0	0	1714	0	0	1656	0	0	1677	0
Flt Permitted		0.998			0.999			0.986			0.958	
Satd. Flow (perm)	0	1758	0	0	1714	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	183	3	3	167	45	3	4	4	48	3	3
Future Volume (vph)	6	183	3	3	167	45	3	4	4	48	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	241	4	4	220	59	4	5	5	63	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	253	0	0	283	0	0	14	0	0	71	0

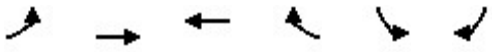
Intersection Summary

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	183	3	3	167	45	3	4	4	48	3	3
Future Vol, veh/h	6	183	3	3	167	45	3	4	4	48	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	241	4	4	220	59	4	5	5	63	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

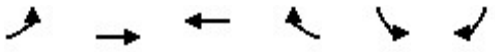
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	9.5	8.2	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	3%	1%	89%
Vol Thru, %	36%	95%	78%	6%
Vol Right, %	36%	2%	21%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	192	215	54
LT Vol	3	6	3	48
Through Vol	4	183	167	3
RT Vol	4	3	45	3
Lane Flow Rate	14	253	283	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.312	0.338	0.104
Departure Headway (Hd)	5.049	4.448	4.306	5.266
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	706	808	835	679
Service Time	3.097	2.473	2.33	3.306
HCM Lane V/C Ratio	0.02	0.313	0.339	0.105
HCM Control Delay	8.2	9.5	9.5	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.3	1.5	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	232	214	0	0	0
Future Volume (vph)	0	232	214	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	301	278	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	301	278	0	0	0

Intersection Summary

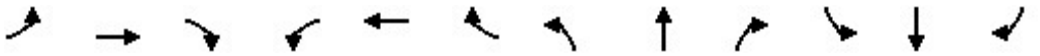
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	232	214	0	0	0
Future Vol, veh/h	0	232	214	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	301	278	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	278	0	-	0	579	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1285	-	-	-	477	761
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1285	-	-	-	477	761
Mov Cap-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	751	-

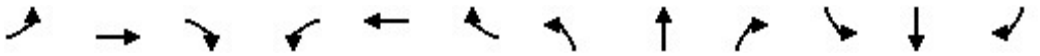
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1285	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	229	1	1	210	3	2	0	1	1	0	0
Future Volume (vph)	1	229	1	1	210	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	294	1	1	269	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	296	0	0	274	0	0	4	0	0	1	0

Intersection Summary

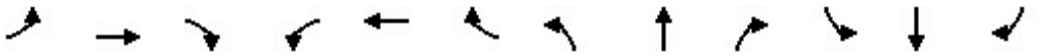
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	229	1	1	210	3	2	0	1	1	0	0
Future Vol, veh/h	1	229	1	1	210	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	294	1	1	269	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	273	0	0	295	0	0	570	572	295	570	570	271
Stage 1	-	-	-	-	-	-	297	297	-	273	273	-
Stage 2	-	-	-	-	-	-	273	275	-	297	297	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1290	-	-	1266	-	-	432	430	744	432	431	768
Stage 1	-	-	-	-	-	-	712	668	-	733	684	-
Stage 2	-	-	-	-	-	-	733	683	-	712	668	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1290	-	-	1266	-	-	431	429	744	431	430	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	431	429	-	431	430	-
Stage 1	-	-	-	-	-	-	711	667	-	732	683	-
Stage 2	-	-	-	-	-	-	732	682	-	710	667	-

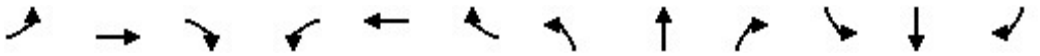
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	12.2	13.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	501	1290	-	-	1266	-	-	431
HCM Lane V/C Ratio	0.008	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	12.2	7.8	0	-	7.8	0	-	13.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.887			0.865	
Flt Protected					0.999			0.992				
Satd. Flow (prot)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Flt Permitted					0.999			0.992				
Satd. Flow (perm)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	229	2	6	211	3	1	0	4	0	0	1
Future Volume (vph)	1	229	2	6	211	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	286	3	8	264	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	276	0	0	6	0	0	1	0

Intersection Summary

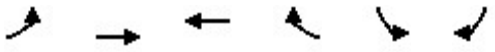
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	229	2	6	211	3	1	0	4	0	0	1
Future Vol, veh/h	1	229	2	6	211	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	286	3	8	264	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	268	0	0	289	0	0	573	574	288	574	573	266
Stage 1	-	-	-	-	-	-	290	290	-	282	282	-
Stage 2	-	-	-	-	-	-	283	284	-	292	291	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1296	-	-	1273	-	-	430	429	751	430	430	773
Stage 1	-	-	-	-	-	-	718	672	-	725	678	-
Stage 2	-	-	-	-	-	-	724	676	-	716	672	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1296	-	-	1273	-	-	427	426	751	424	427	773
Mov Cap-2 Maneuver	-	-	-	-	-	-	427	426	-	424	427	-
Stage 1	-	-	-	-	-	-	717	671	-	724	673	-
Stage 2	-	-	-	-	-	-	718	671	-	711	671	-

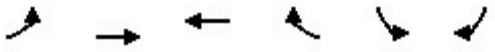
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.6	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	652	1296	-	-	1273	-	-	773
HCM Lane V/C Ratio	0.01	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	10.6	7.8	0	-	7.8	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.892	
Flt Protected		0.999			0.990	
Satd. Flow (prot)	0	1763	1765	0	1558	0
Flt Permitted		0.999			0.990	
Satd. Flow (perm)	0	1763	1765	0	1558	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	231	221	1	1	3
Future Volume (vph)	2	231	221	1	1	3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	3	289	276	1	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	292	277	0	5	0

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	231	221	1	1	3
Future Vol, veh/h	2	231	221	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	289	276	1	1	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	277	0	-	0	572	277
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1286	-	-	-	482	762
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	755	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1286	-	-	-	481	762
Mov Cap-2 Maneuver	-	-	-	-	481	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	755	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1286	-	-	-	665
HCM Lane V/C Ratio	0.002	-	-	-	0.008
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected				0.999		
Satd. Flow (prot)	1765	0	0	1763	1526	0
Flt Permitted				0.999		
Satd. Flow (perm)	1765	0	0	1763	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	663			726	262	
Travel Time (s)	15.1			16.5	6.0	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	229	0	2	221	0	2
Future Volume (vph)	229	0	2	221	0	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	286	0	3	276	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	286	0	0	279	3	0

Intersection Summary

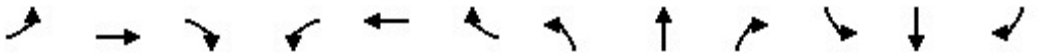
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	229	0	2	221	0	2
Future Vol, veh/h	229	0	2	221	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	286	0	3	276	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	286	0	568	286
Stage 1	-	-	-	-	286	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1276	-	484	753
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1276	-	483	753
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	764	-

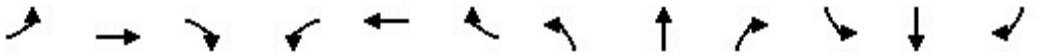
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	753	-	-	1276	-
HCM Lane V/C Ratio	0.003	-	-	0.002	-
HCM Control Delay (s)	9.8	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.984			0.978			0.970	
Flt Protected		0.990			0.987			0.987			0.995	
Satd. Flow (prot)	0	1769	0	0	1809	0	0	1798	0	0	1798	0
Flt Permitted		0.990			0.987			0.987			0.995	
Satd. Flow (perm)	0	1769	0	0	1809	0	0	1798	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	54	134	82	48	118	22	63	144	41	22	157	51
Future Volume (vph)	54	134	82	48	118	22	63	144	41	22	157	51
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)	61	152	93	55	134	25	72	164	47	25	178	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	214	0	0	283	0	0	261	0

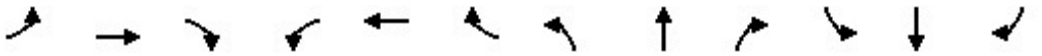
Intersection Summary

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	134	82	48	118	22	63	144	41	22	157	51
Future Vol, veh/h	54	134	82	48	118	22	63	144	41	22	157	51
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	152	93	55	134	25	72	164	47	25	178	58
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

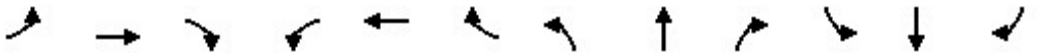
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.9	12.9	14.4	13.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	20%	26%	10%
Vol Thru, %	58%	50%	63%	68%
Vol Right, %	17%	30%	12%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	270	188	230
LT Vol	63	54	48	22
Through Vol	144	134	118	157
RT Vol	41	82	22	51
Lane Flow Rate	282	307	214	261
Geometry Grp	1	1	1	1
Degree of Util (X)	0.473	0.508	0.37	0.437
Departure Headway (Hd)	6.037	5.959	6.229	6.018
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	608	577	596
Service Time	4.086	3.959	4.281	4.07
HCM Lane V/C Ratio	0.474	0.505	0.371	0.438
HCM Control Delay	14.4	14.9	12.9	13.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.5	2.9	1.7	2.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.962			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1698	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.580			0.744			0.950			0.950		
Satd. Flow (perm)	967	1698	0	1240	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			184				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



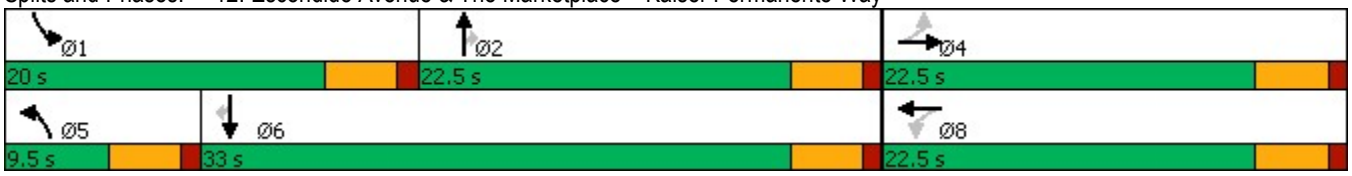
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	76	15	5	161	5	182	3	681	149	304	898	37
Future Volume (vph)	76	15	5	161	5	182	3	681	149	304	898	37
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	77	15	5	163	5	184	3	688	151	307	907	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	20	0	163	189	0	3	688	151	307	907	37

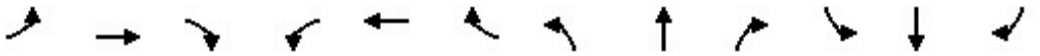
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	76	15	161	5	3	681	149	304	898	37
Future Volume (vph)	76	15	161	5	3	681	149	304	898	37
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.5	12.5	12.5	12.5	5.1	16.4	16.4	14.4	33.7	33.7
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.29	0.29	0.25	0.59	0.59
v/c Ratio	0.36	0.05	0.60	0.40	0.02	0.71	0.27	0.77	0.46	0.04
Control Delay	24.8	15.8	30.8	6.7	27.7	24.0	4.1	37.2	9.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	15.8	30.8	6.7	27.7	24.0	4.1	37.2	9.0	0.1
LOS	C	B	C	A	C	C	A	D	A	A
Approach Delay		23.0		17.8		20.4			15.6	
Approach LOS		C		B		C			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 57.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

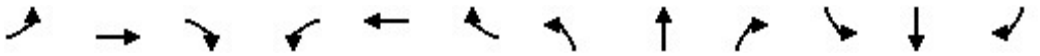




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	15	5	161	5	182	3	681	149	304	898	37
Future Volume (veh/h)	76	15	5	161	5	182	3	681	149	304	898	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	77	15	5	163	5	184	3	688	151	307	907	37
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	280	93	421	9	323	7	948	423	364	1704	760
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.28	0.28	0.23	0.51	0.51
Sat Flow, veh/h	1128	1272	424	1315	40	1468	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	77	0	20	163	0	189	3	688	151	307	907	37
Grp Sat Flow(s),veh/h/ln	1128	0	1696	1315	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	3.3	0.0	0.5	5.6	0.0	5.6	0.1	9.2	4.0	9.2	9.1	0.6
Cycle Q Clear(g_c), s	8.9	0.0	0.5	6.1	0.0	5.6	0.1	9.2	4.0	9.2	9.1	0.6
Prop In Lane	1.00		0.25	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	0	373	421	0	331	7	948	423	364	1704	760
V/C Ratio(X)	0.29	0.00	0.05	0.39	0.00	0.57	0.46	0.73	0.36	0.84	0.53	0.05
Avail Cap(c_a), veh/h	424	0	610	605	0	543	159	1212	540	494	1919	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	15.4	17.8	0.0	17.4	24.8	16.2	14.3	18.4	8.3	6.3
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.6	0.0	1.5	43.4	1.6	0.5	9.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	1.6	0.0	1.9	0.1	3.3	1.3	3.9	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	15.5	18.4	0.0	18.9	68.3	17.8	14.9	27.9	8.6	6.3
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		97			352			842			1251	
Approach Delay, s/veh		20.6			18.7			17.5			13.3	
Approach LOS		C			B			B			B	

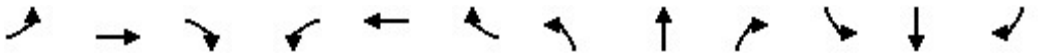
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.9	18.6		15.5	4.7	29.8		15.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	11.2	11.2		10.9	2.1	11.1		8.1				
Green Ext Time (p_c), s	0.4	2.9		0.2	0.0	6.2		1.2				

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)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1574	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			477			182			117		132	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



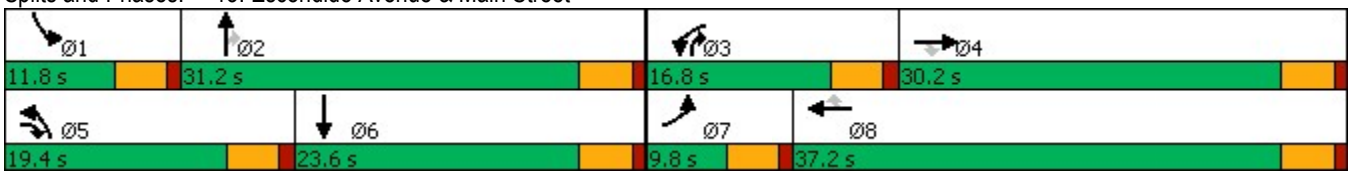
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	1369	663	379	1031	12	479	218	294	45	81	211
Future Volume (vph)	53	1369	663	379	1031	12	479	218	294	45	81	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	54	1397	677	387	1052	12	489	222	300	46	83	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1397	677	387	1052	12	489	222	300	46	298	0

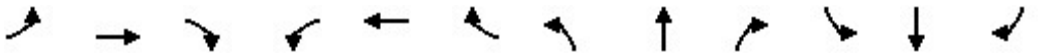
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	1369	663	379	1031	12	479	218	294	45	81
Future Volume (vph)	53	1369	663	379	1031	12	479	218	294	45	81
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.2	19.4	16.8	37.2	37.2	19.4	31.2	16.8	11.8	23.6
Total Split (%)	10.9%	33.6%	21.6%	18.7%	41.3%	41.3%	21.6%	34.7%	18.7%	13.1%	26.2%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	25.8	45.3	12.3	35.0	35.0	15.0	26.7	43.6	6.8	14.0
Actuated g/C Ratio	0.06	0.30	0.53	0.14	0.41	0.41	0.18	0.31	0.51	0.08	0.16
v/c Ratio	0.55	0.96	0.66	0.93	0.76	0.02	0.96	0.40	0.36	0.37	0.81
Control Delay	62.7	46.5	8.0	67.5	28.1	0.1	69.7	27.0	9.6	47.2	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	46.5	8.0	67.5	28.1	0.1	69.7	27.0	9.6	47.2	35.8
LOS	E	D	A	E	C	A	E	C	A	D	D
Approach Delay		34.7			38.4			42.5			37.3
Approach LOS		C			D			D			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 85.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1369	663	379	1031	12	479	218	294	45	81	211
Future Volume (veh/h)	53	1369	663	379	1031	12	479	218	294	45	81	211
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	54	1397	677	387	1052	12	489	222	300	46	83	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1387	680	399	1288	575	484	597	712	61	91	236
Arrive On Green	0.04	0.29	0.29	0.14	0.38	0.38	0.17	0.34	0.34	0.04	0.21	0.21
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	437	1131
Grp Volume(v), veh/h	54	1397	677	387	1052	12	489	222	300	46	0	298
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1568
Q Serve(g_s), s	3.0	25.7	25.7	11.9	25.1	0.4	14.9	8.5	11.8	2.6	0.0	16.6
Cycle Q Clear(g_c), s	3.0	25.7	25.7	11.9	25.1	0.4	14.9	8.5	11.8	2.6	0.0	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	66	1387	680	399	1288	575	484	597	712	61	0	328
V/C Ratio(X)	0.82	1.01	1.00	0.97	0.82	0.02	1.01	0.37	0.42	0.76	0.00	0.91
Avail Cap(c_a), veh/h	94	1387	680	399	1288	575	484	597	712	130	0	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	32.0	24.4	38.5	24.8	17.2	37.4	22.5	15.5	42.7	0.0	34.6
Incr Delay (d2), s/veh	29.9	25.9	33.2	36.8	4.2	0.0	43.6	0.4	0.4	17.4	0.0	27.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	13.0	19.5	6.2	10.3	0.2	8.1	3.5	3.9	1.3	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	57.9	57.6	75.3	29.1	17.2	81.0	22.9	15.9	60.1	0.0	62.0
LnGrp LOS	E	F	E	E	C	B	F	C	B	E	A	E
Approach Vol, veh/h		2128			1451			1011			344	
Approach Delay, s/veh		58.2			41.3			48.9			61.8	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	34.7	16.8	30.2	19.4	23.2	8.2	38.8
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	7.3	26.7	12.3	25.7	14.9	19.1	5.3	32.7
Max Q Clear Time (g_c+I1), s	4.6	13.8	13.9	27.7	16.9	18.6	5.0	27.1
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.1	0.0	3.3

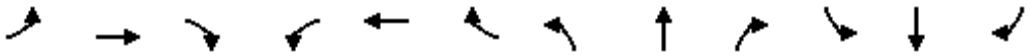
Intersection Summary	
HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

Notes

User approved changes to right turn type.

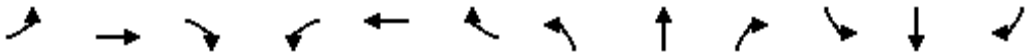
Appendix J

Project Opening Year (2023) With Cumulative Projects
With Project Conditions
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.967			0.971				
Flt Protected		0.994			0.964						0.996	
Satd. Flow (prot)	0	1651	0	0	1645	0	0	1714	0	0	1758	0
Flt Permitted		0.994			0.964						0.996	
Satd. Flow (perm)	0	1651	0	0	1645	0	0	1714	0	0	1758	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	300	8	99	0	397	110	44	484	1
Future Volume (vph)	2	6	6	300	8	99	0	397	110	44	484	1
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)	2	7	7	341	9	113	0	451	125	50	550	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	463	0	0	576	0	0	601	0

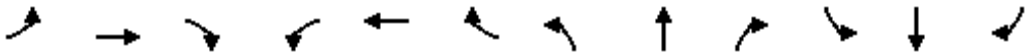
Intersection Summary

Intersection	
Intersection Delay, s/veh	86.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	6	6	300	8	99	0	397	110	44	484	1
Future Vol, veh/h	2	6	6	300	8	99	0	397	110	44	484	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	341	9	113	0	451	125	50	550	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

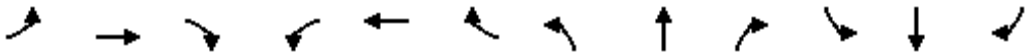
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.4	50.6	88.7	112.9
HCM LOS	B	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	74%	8%
Vol Thru, %	78%	43%	2%	91%
Vol Right, %	22%	43%	24%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	507	14	407	529
LT Vol	0	2	300	44
Through Vol	397	6	8	484
RT Vol	110	6	99	1
Lane Flow Rate	576	16	462	601
Geometry Grp	1	1	1	1
Degree of Util (X)	1.077	0.04	0.916	1.148
Departure Headway (Hd)	7.125	9.938	7.564	7.184
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	513	362	481	511
Service Time	5.125	7.938	5.564	5.184
HCM Lane V/C Ratio	1.123	0.044	0.96	1.176
HCM Control Delay	88.7	13.4	50.6	112.9
HCM Lane LOS	F	B	F	F
HCM 95th-tile Q	16.9	0.1	10.5	20



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.932			0.910	
Flt Protected								0.985			0.992	
Satd. Flow (prot)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Flt Permitted								0.985			0.992	
Satd. Flow (perm)	0	1765	0	0	1765	0	0	1620	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	159	0	2	397	1	4	2	6	1	1	3
Future Volume (vph)	1	159	0	2	397	1	4	2	6	1	1	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	199	0	3	496	1	5	3	8	1	1	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	200	0	0	500	0	0	16	0	0	6	0

Intersection Summary

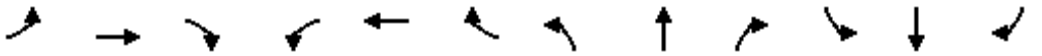
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	159	0	2	397	1	4	2	6	1	1	3
Future Vol, veh/h	1	159	0	2	397	1	4	2	6	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	199	0	3	496	1	5	3	8	1	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	497	0	0	199	0	0	706	704	199	710	704	497
Stage 1	-	-	-	-	-	-	201	201	-	503	503	-
Stage 2	-	-	-	-	-	-	505	503	-	207	201	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1067	-	-	1373	-	-	351	361	842	348	361	573
Stage 1	-	-	-	-	-	-	801	735	-	551	541	-
Stage 2	-	-	-	-	-	-	549	541	-	795	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1067	-	-	1373	-	-	347	360	842	342	360	573
Mov Cap-2 Maneuver	-	-	-	-	-	-	347	360	-	342	360	-
Stage 1	-	-	-	-	-	-	800	734	-	550	539	-
Stage 2	-	-	-	-	-	-	543	539	-	784	734	-

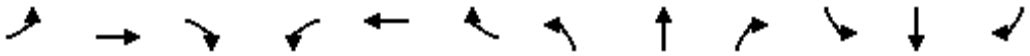
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.5	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	496	1067	-	-	1373	-	-	457
HCM Lane V/C Ratio	0.03	0.001	-	-	0.002	-	-	0.014
HCM Control Delay (s)	12.5	8.4	0	-	7.6	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.946				0.850		0.988	0.850
Flt Protected		0.995			0.999			0.950			0.956	
Satd. Flow (prot)	0	1754	0	0	1668	0	0	1676	1500	0	1583	1425
Flt Permitted		0.995			0.999			0.950			0.956	
Satd. Flow (perm)	0	1754	0	0	1668	0	0	1676	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	157	2	5	265	181	2	0	3	106	1	91
Future Volume (vph)	18	157	2	5	265	181	2	0	3	106	1	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	21	187	2	6	315	215	2	0	4	126	1	108
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	210	0	0	536	0	0	2	4	0	138	97

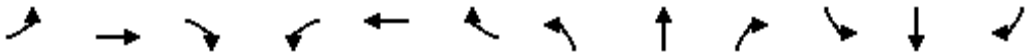
Intersection Summary

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	157	2	5	265	181	2	0	3	106	1	91
Future Vol, veh/h	18	157	2	5	265	181	2	0	3	106	1	91
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	187	2	6	315	215	2	0	4	126	1	108
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

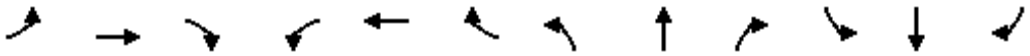
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.9	18.4	9.4	10.9
HCM LOS	B	C	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	10%	1%	91%	0%
Vol Thru, %	0%	0%	89%	59%	1%	0%
Vol Right, %	0%	100%	1%	40%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	3	177	451	116	82
LT Vol	2	0	18	5	106	0
Through Vol	0	0	157	265	1	0
RT Vol	0	3	2	181	9	82
Lane Flow Rate	2	4	211	537	138	98
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.005	0.006	0.314	0.708	0.261	0.154
Departure Headway (Hd)	7.382	6.152	5.37	4.748	6.796	5.673
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	484	580	670	768	529	632
Service Time	5.135	3.904	3.403	2.748	4.532	3.408
HCM Lane V/C Ratio	0.004	0.007	0.315	0.699	0.261	0.155
HCM Control Delay	10.2	8.9	10.9	18.4	11.9	9.4
HCM Lane LOS	B	A	B	C	B	A
HCM 95th-tile Q	0	0	1.3	6	1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.952			0.984			0.979	
Flt Protected		0.992			0.999			0.972			0.961	
Satd. Flow (prot)	0	1749	0	0	1678	0	0	1688	0	0	1660	0
Flt Permitted		0.992			0.999			0.972			0.961	
Satd. Flow (perm)	0	1749	0	0	1678	0	0	1688	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	44	214	2	5	271	154	16	8	3	118	4	23
Future Volume (vph)	44	214	2	5	271	154	16	8	3	118	4	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
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)	52	255	2	6	323	183	19	10	4	140	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	309	0	0	512	0	0	33	0	0	172	0

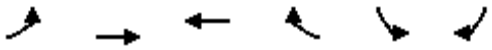
Intersection Summary

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	214	2	5	271	154	16	8	3	118	4	23
Future Vol, veh/h	44	214	2	5	271	154	16	8	3	118	4	23
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	255	2	6	323	183	19	10	4	140	5	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

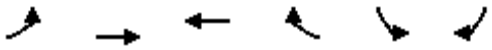
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.7	17.7	9.9	11.6
HCM LOS	B	C	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	17%	1%	81%
Vol Thru, %	30%	82%	63%	3%
Vol Right, %	11%	1%	36%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	260	430	145
LT Vol	16	44	5	118
Through Vol	8	214	271	4
RT Vol	3	2	154	23
Lane Flow Rate	32	310	512	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.454	0.684	0.291
Departure Headway (Hd)	6.42	5.283	4.813	6.07
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	556	681	752	592
Service Time	4.477	3.319	2.844	4.113
HCM Lane V/C Ratio	0.058	0.455	0.681	0.292
HCM Control Delay	9.9	12.7	17.7	11.6
HCM Lane LOS	A	B	C	B
HCM 95th-tile Q	0.2	2.4	5.5	1.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1765	1765	0	1676	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1765	1765	0	1676	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	331	430	0	1	0
Future Volume (vph)	0	331	430	0	1	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
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)	0	360	467	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	360	467	0	1	0

Intersection Summary

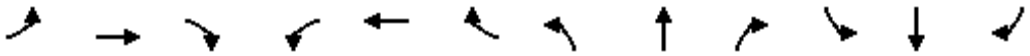
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	331	430	0	1	0
Future Vol, veh/h	0	331	430	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	360	467	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	827	467
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	360	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	341	596
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	706	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	341	596
Mov Cap-2 Maneuver	-	-	-	-	341	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	706	-

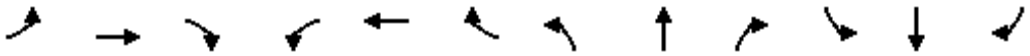
Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	341
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	15.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.973			0.910	
Flt Protected								0.962			0.984	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Flt Permitted								0.962			0.984	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1652	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	327	3	0	421	2	4	0	1	1	0	2
Future Volume (vph)	3	327	3	0	421	2	4	0	1	1	0	2
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)	3	355	3	0	458	2	4	0	1	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	361	0	0	460	0	0	5	0	0	3	0

Intersection Summary

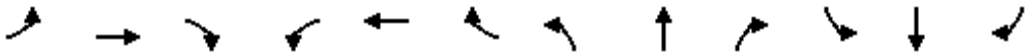
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	327	3	0	421	2	4	0	1	1	0	2
Future Vol, veh/h	3	327	3	0	421	2	4	0	1	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	355	3	0	458	2	4	0	1	1	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	358	0	0	823	823	357	822	823	459
Stage 1	-	-	-	-	-	-	363	363	-	459	459	-
Stage 2	-	-	-	-	-	-	460	460	-	363	364	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1101	-	-	1201	-	-	292	309	687	293	309	602
Stage 1	-	-	-	-	-	-	656	625	-	582	566	-
Stage 2	-	-	-	-	-	-	581	566	-	656	624	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1101	-	-	1201	-	-	290	308	687	292	308	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	290	308	-	292	308	-
Stage 1	-	-	-	-	-	-	654	623	-	580	566	-
Stage 2	-	-	-	-	-	-	579	566	-	653	622	-

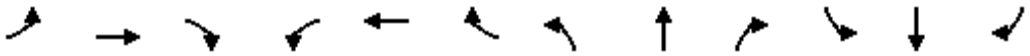
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	16.2	13.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	328	1101	-	-	1201	-	-	445
HCM Lane V/C Ratio	0.017	0.003	-	-	-	-	-	0.007
HCM Control Delay (s)	16.2	8.3	0	-	0	-	-	13.2
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.955			0.955	
Flt Protected								0.968			0.968	
Satd. Flow (prot)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Flt Permitted								0.968			0.968	
Satd. Flow (perm)	0	1761	0	0	1765	0	0	1631	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	321	5	3	417	0	4	0	2	2	0	1
Future Volume (vph)	1	321	5	3	417	0	4	0	2	2	0	1
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)	1	349	5	3	453	0	4	0	2	2	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	0	0	456	0	0	6	0	0	3	0

Intersection Summary

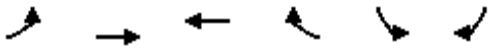
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	321	5	3	417	0	4	0	2	2	0	1
Future Vol, veh/h	1	321	5	3	417	0	4	0	2	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	349	5	3	453	0	4	0	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	453	0	0	354	0	0	814	813	352	814	815	453
Stage 1	-	-	-	-	-	-	354	354	-	459	459	-
Stage 2	-	-	-	-	-	-	460	459	-	355	356	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1108	-	-	1205	-	-	297	313	692	297	312	607
Stage 1	-	-	-	-	-	-	663	630	-	582	566	-
Stage 2	-	-	-	-	-	-	581	566	-	662	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1108	-	-	1205	-	-	296	312	692	295	311	607
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	312	-	295	311	-
Stage 1	-	-	-	-	-	-	662	629	-	581	564	-
Stage 2	-	-	-	-	-	-	578	564	-	659	628	-

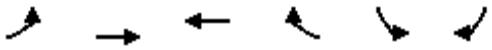
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	15	15.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	366	1108	-	-	1205	-	-	356
HCM Lane V/C Ratio	0.018	0.001	-	-	0.003	-	-	0.009
HCM Control Delay (s)	15	8.3	0	-	8	0	-	15.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.920	
Flt Protected		0.999			0.980	
Satd. Flow (prot)	0	1763	1761	0	1591	0
Flt Permitted		0.999			0.980	
Satd. Flow (perm)	0	1763	1761	0	1591	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	7	317	399	5	12	18
Future Volume (vph)	7	317	399	5	12	18
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
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)	8	341	429	5	13	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	349	434	0	32	0

Intersection Summary

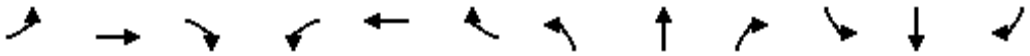
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	317	399	5	12	18
Future Vol, veh/h	7	317	399	5	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	341	429	5	13	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	434	0	-	0	789	432
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	357	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1126	-	-	-	359	624
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1126	-	-	-	356	624
Mov Cap-2 Maneuver	-	-	-	-	356	-
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	708	-

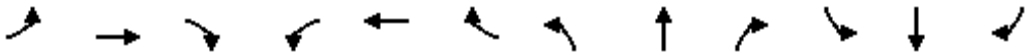
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1126	-	-	-	480
HCM Lane V/C Ratio	0.007	-	-	-	0.067
HCM Control Delay (s)	8.2	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.999			0.865			0.922	
Flt Protected		0.999									0.979	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Flt Permitted		0.999									0.979	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1526	0	0	1593	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			229	
Travel Time (s)		15.1			16.5			6.0			5.2	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	325	0	0	388	4	0	0	1	12	0	17
Future Volume (vph)	6	325	0	0	388	4	0	0	1	12	0	17
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.93	0.93	0.93	0.93	0.92	0.93	0.92	0.93	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)	7	349	0	0	417	4	0	0	1	13	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	356	0	0	421	0	0	1	0	0	31	0

Intersection Summary

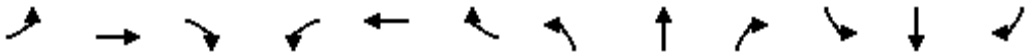
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	325	0	0	388	4	0	0	1	12	0	17
Future Vol, veh/h	6	325	0	0	388	4	0	0	1	12	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	93	93	93	93	92	93	92	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	349	0	0	417	4	0	0	1	13	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	421	0	0	349	0	0	791	784	349	783	782	419
Stage 1	-	-	-	-	-	-	363	363	-	419	419	-
Stage 2	-	-	-	-	-	-	428	421	-	364	363	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1138	-	-	1210	-	-	307	325	694	311	326	634
Stage 1	-	-	-	-	-	-	656	625	-	612	590	-
Stage 2	-	-	-	-	-	-	605	589	-	655	625	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1138	-	-	1210	-	-	296	322	694	309	323	634
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	322	-	309	323	-
Stage 1	-	-	-	-	-	-	651	620	-	607	590	-
Stage 2	-	-	-	-	-	-	587	589	-	649	620	-

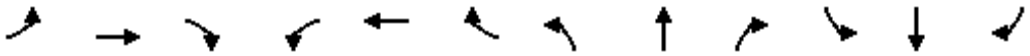
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	10.2	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	694	1138	-	-	1210	-	-	442
HCM Lane V/C Ratio	0.002	0.006	-	-	-	-	-	0.071
HCM Control Delay (s)	10.2	8.2	0	-	0	-	-	13.8
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.971			0.996			0.981			0.932	
Flt Protected		0.989			0.994			0.975			0.998	
Satd. Flow (prot)	0	1789	0	0	1844	0	0	1782	0	0	1733	0
Flt Permitted		0.989			0.994			0.975			0.998	
Satd. Flow (perm)	0	1789	0	0	1844	0	0	1782	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	85	217	84	27	200	6	119	79	32	6	83	89
Future Volume (vph)	85	217	84	27	200	6	119	79	32	6	83	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)	92	236	91	29	217	7	129	86	35	7	90	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	419	0	0	253	0	0	250	0	0	194	0

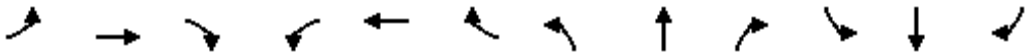
Intersection Summary

Intersection	
Intersection Delay, s/veh	16.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	217	84	27	200	6	119	79	32	6	83	89
Future Vol, veh/h	85	217	84	27	200	6	119	79	32	6	83	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	236	91	29	217	7	129	86	35	7	90	97
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

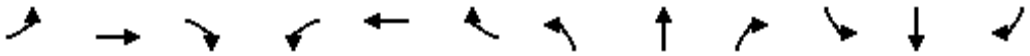
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.2	14	14.6	12.5
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	22%	12%	3%
Vol Thru, %	34%	56%	86%	47%
Vol Right, %	14%	22%	3%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	386	233	178
LT Vol	119	85	27	6
Through Vol	79	217	200	83
RT Vol	32	84	6	89
Lane Flow Rate	250	420	253	193
Geometry Grp	1	1	1	1
Degree of Util (X)	0.446	0.677	0.437	0.337
Departure Headway (Hd)	6.425	5.812	6.217	6.275
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	560	621	577	573
Service Time	4.474	3.854	4.266	4.328
HCM Lane V/C Ratio	0.446	0.676	0.438	0.337
HCM Control Delay	14.6	20.2	14	12.5
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	2.3	5.2	2.2	1.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			336			1323			134	
Travel Time (s)		5.9			7.6			30.1			3.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
Future Volume (vph)	0	0	0	29	0	0	0	0	10	0	0	0
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)	0	0	0	32	0	0	0	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	32	0	0	11	0	0	0	0

Intersection Summary

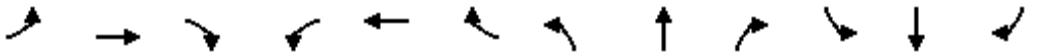
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Future Vol, veh/h	0	0	0	29	0	0	0	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	0	0	0	0	11	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	7	12	1	7	7	6	1	0	0	11	0	0
Stage 1	1	1	-	6	6	-	-	-	-	-	-	-
Stage 2	6	11	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	1013	883	1084	1013	888	1077	1622	-	-	1608	-	-
Mov Cap-2 Maneuver	1013	883	-	1013	888	-	-	-	-	-	-	-
Stage 1	1022	895	-	1016	891	-	-	-	-	-	-	-
Stage 2	1016	886	-	1022	895	-	-	-	-	-	-	-

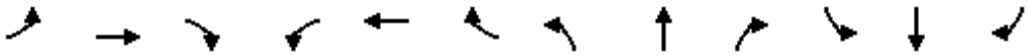
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	1013	1608	-	-
HCM Lane V/C Ratio	-	-	-	-	0.031	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt					0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1765	0	1583	1504	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.708			0.757			0.950			0.950		
Satd. Flow (perm)	1180	1765	0	1262	1504	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					75				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



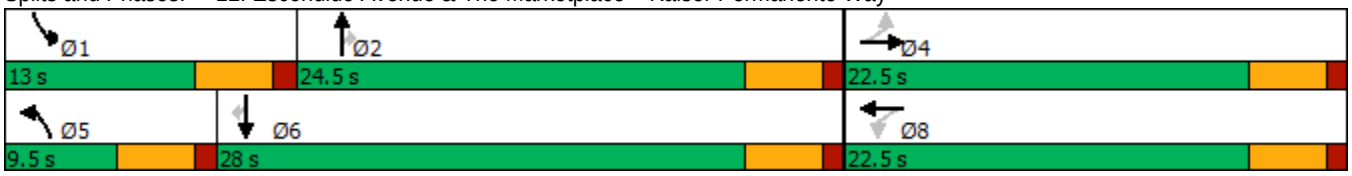
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	2	0	55	1	69	1	958	78	175	680	69
Future Volume (vph)	7	2	0	55	1	69	1	958	78	175	680	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	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)	8	2	0	60	1	75	1	1041	85	190	739	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	2	0	60	76	0	1	1041	85	190	739	75

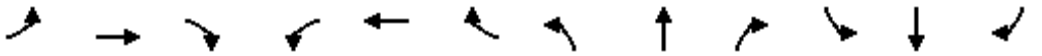
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	7	2	55	1	1	958	78	175	680	69
Future Volume (vph)	7	2	55	1	1	958	78	175	680	69
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	24.5	24.5	13.0	28.0	28.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	15.8%	40.8%	40.8%	21.7%	46.7%	46.7%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.8	7.8	7.8	7.8	5.0	22.2	22.2	8.5	34.4	34.4
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.10	0.44	0.44	0.17	0.69	0.69
v/c Ratio	0.04	0.01	0.30	0.25	0.01	0.70	0.12	0.71	0.32	0.07
Control Delay	17.9	17.0	22.6	8.0	22.0	16.5	2.5	38.3	5.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.0	22.6	8.0	22.0	16.5	2.5	38.3	5.9	1.4
LOS	B	B	C	A	C	B	A	D	A	A
Approach Delay		17.7		14.5		15.4			11.7	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 50	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

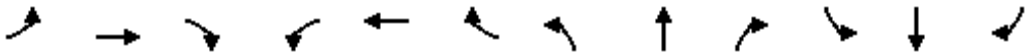




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	2	0	55	1	69	1	958	78	175	680	69
Future Volume (veh/h)	7	2	0	55	1	69	1	958	78	175	680	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	2	0	60	1	75	1	1041	85	190	739	75
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	244	177	0	311	2	148	4	1403	626	235	1895	845
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.00	0.42	0.42	0.15	0.56	0.56
Sat Flow, veh/h	1250	1772	0	1336	20	1485	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	8	2	0	60	0	76	1	1041	85	190	739	75
Grp Sat Flow(s),veh/h/ln	1250	1772	0	1336	0	1505	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	0.2	0.0	0.0	1.7	0.0	1.9	0.0	10.5	1.4	4.6	4.9	0.9
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.7	0.0	1.9	0.0	10.5	1.4	4.6	4.9	0.9
Prop In Lane	1.00		0.00	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	177	0	311	0	150	4	1403	626	235	1895	845
V/C Ratio(X)	0.03	0.01	0.00	0.19	0.00	0.51	0.25	0.74	0.14	0.81	0.39	0.09
Avail Cap(c_a), veh/h	679	793	0	776	0	673	198	1674	747	337	1967	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	16.3	0.0	17.1	0.0	17.2	20.0	9.9	7.2	16.6	4.9	4.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	2.6	30.4	1.5	0.1	9.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.5	0.0	0.7	0.0	3.0	0.3	2.0	1.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	16.3	0.0	17.4	0.0	19.8	50.4	11.4	7.3	25.8	5.1	4.1
LnGrp LOS	B	B	A	B	A	B	D	B	A	C	A	A
Approach Vol, veh/h		10			136			1127			1004	
Approach Delay, s/veh		17.9			18.7			11.1			8.9	
Approach LOS		B			B			B			A	

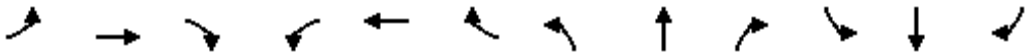
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	21.3		8.5	4.6	27.1		8.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	20.0		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	6.6	12.5		4.2	2.0	6.9		3.9				
Green Ext Time (p_c), s	0.1	4.3		0.0	0.0	5.0		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.6	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.872	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1539	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			525			182			211		85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



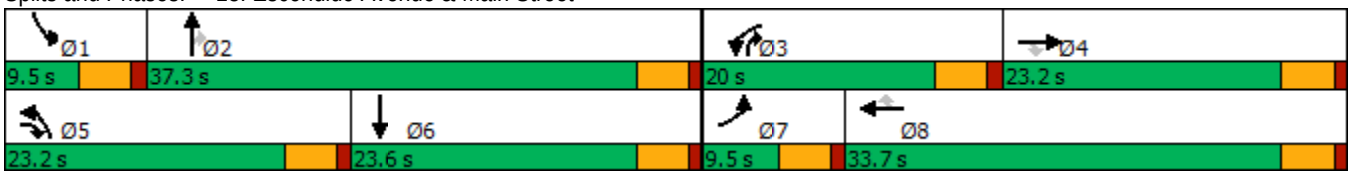
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	864	478	411	858	5	554	103	374	4	14	77
Future Volume (vph)	7	864	478	411	858	5	554	103	374	4	14	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
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)	8	949	525	452	943	5	609	113	411	4	15	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	949	525	452	943	5	609	113	411	4	100	0

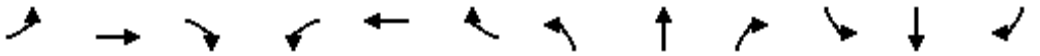
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	7	864	478	411	858	5	554	103	374	4	14
Future Volume (vph)	7	864	478	411	858	5	554	103	374	4	14
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.5	23.2	23.2	20.0	33.7	33.7	23.2	37.3	20.0	9.5	23.6
Total Split (%)	10.6%	25.8%	25.8%	22.2%	37.4%	37.4%	25.8%	41.4%	22.2%	10.6%	26.2%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.0	18.7	41.9	15.2	36.6	36.6	18.7	28.5	48.3	5.0	7.1
Actuated g/C Ratio	0.06	0.24	0.54	0.20	0.47	0.47	0.24	0.37	0.62	0.06	0.09
v/c Ratio	0.08	0.82	0.50	0.80	0.60	0.01	0.88	0.17	0.41	0.04	0.46
Control Delay	37.3	35.4	2.9	42.5	18.3	0.0	44.8	18.8	5.2	36.2	17.9
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	37.3	35.4	2.9	42.5	18.3	0.0	44.8	18.8	5.2	36.2	17.9
LOS	D	D	A	D	B	A	D	B	A	D	B
Approach Delay		23.9			26.0			27.8			18.6
Approach LOS		C			C			C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 77.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





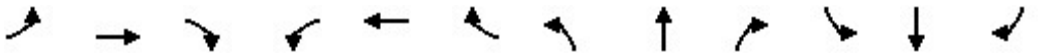
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	864	478	411	858	5	554	103	374	4	14	77
Future Volume (veh/h)	7	864	478	411	858	5	554	103	374	4	14	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	8	949	525	452	943	5	609	113	411	4	15	85
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1204	726	531	1418	632	683	574	760	8	22	123
Arrive On Green	0.01	0.25	0.25	0.18	0.42	0.42	0.23	0.32	0.32	0.01	0.09	0.09
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	231	1306
Grp Volume(v), veh/h	8	949	525	452	943	5	609	113	411	4	0	100
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1537
Q Serve(g_s), s	0.4	13.8	18.7	11.3	16.9	0.1	15.2	3.5	14.0	0.2	0.0	4.7
Cycle Q Clear(g_c), s	0.4	13.8	18.7	11.3	16.9	0.1	15.2	3.5	14.0	0.2	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	16	1204	726	531	1418	632	683	574	760	8	0	145
V/C Ratio(X)	0.49	0.79	0.72	0.85	0.67	0.01	0.89	0.20	0.54	0.47	0.00	0.69
Avail Cap(c_a), veh/h	106	1204	726	600	1418	632	724	774	930	106	0	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.0	26.4	15.4	29.7	17.5	12.6	27.8	18.4	12.6	37.3	0.0	33.0
Incr Delay (d2), s/veh	21.0	3.6	3.6	10.3	1.2	0.0	12.9	0.2	0.6	35.5	0.0	5.7
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	0.2	5.4	7.1	4.6	6.2	0.0	6.3	1.4	4.3	0.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	30.0	19.0	40.0	18.7	12.6	40.7	18.5	13.2	72.7	0.0	38.7
LnGrp LOS	E	C	B	D	B	B	D	B	B	E	A	D
Approach Vol, veh/h		1482			1400			1133			104	
Approach Delay, s/veh		26.2			25.5			28.5			40.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	28.8	18.2	23.2	22.1	11.6	5.3	36.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	32.8	15.5	18.7	18.7	19.1	5.0	29.2
Max Q Clear Time (g_c+I1), s	2.2	16.0	13.3	20.7	17.2	6.7	2.4	18.9
Green Ext Time (p_c), s	0.0	2.0	0.4	0.0	0.4	0.4	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

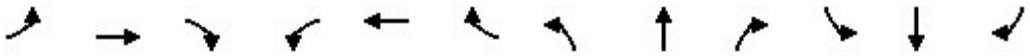
Notes

User approved changes to right turn type.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.927			0.973			0.999	
Flt Protected		0.985			0.978						0.987	
Satd. Flow (prot)	0	1702	0	0	1600	0	0	1717	0	0	1740	0
Flt Permitted		0.985			0.978						0.987	
Satd. Flow (perm)	0	1702	0	0	1600	0	0	1717	0	0	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	71	2	87	3	433	110	115	317	3
Future Volume (vph)	3	6	2	71	2	87	3	433	110	115	317	3
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)	4	7	2	86	2	105	4	522	133	139	382	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	193	0	0	659	0	0	525	0

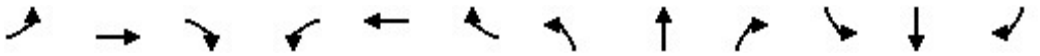
Intersection Summary

Intersection	
Intersection Delay, s/veh	37.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	71	2	87	3	433	110	115	317	3
Future Vol, veh/h	3	6	2	71	2	87	3	433	110	115	317	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	86	2	105	4	522	133	139	382	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

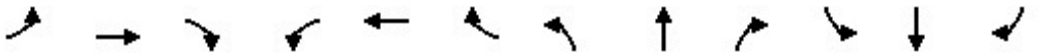
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	13.4	51	29.5
HCM LOS	B	B	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	27%	44%	26%
Vol Thru, %	79%	55%	1%	73%
Vol Right, %	20%	18%	54%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	546	11	160	435
LT Vol	3	3	71	115
Through Vol	433	6	2	317
RT Vol	110	2	87	3
Lane Flow Rate	658	13	193	524
Geometry Grp	1	1	1	1
Degree of Util (X)	0.972	0.028	0.355	0.821
Departure Headway (Hd)	5.318	7.687	6.627	5.637
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	468	538	639
Service Time	3.385	5.687	4.721	3.709
HCM Lane V/C Ratio	0.971	0.028	0.359	0.82
HCM Control Delay	51	10.9	13.4	29.5
HCM Lane LOS	F	B	B	D
HCM 95th-tile Q	14.5	0.1	1.6	8.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.910				
Flt Protected					0.999			0.984			0.950	
Satd. Flow (prot)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Flt Permitted					0.999			0.984			0.950	
Satd. Flow (perm)	0	1763	0	0	1763	0	0	1580	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			1315			95			100	
Travel Time (s)		29.7			29.9			2.2			2.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	240	1	4	169	0	1	0	2	1	0	0
Future Volume (vph)	0	240	1	4	169	0	1	0	2	1	0	0
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)	0	261	1	4	184	0	1	0	2	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	188	0	0	3	0	0	1	0

Intersection Summary

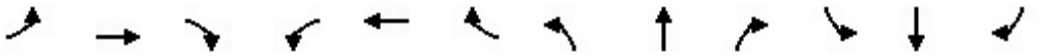
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	240	1	4	169	0	1	0	2	1	0	0
Future Vol, veh/h	0	240	1	4	169	0	1	0	2	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	261	1	4	184	0	1	0	2	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	184	0	0	262	0	0	454	454	262	455	454	184
Stage 1	-	-	-	-	-	-	262	262	-	192	192	-
Stage 2	-	-	-	-	-	-	192	192	-	263	262	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1391	-	-	1302	-	-	516	502	777	515	502	858
Stage 1	-	-	-	-	-	-	743	691	-	810	742	-
Stage 2	-	-	-	-	-	-	810	742	-	742	691	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1391	-	-	1302	-	-	515	500	777	512	500	858
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	500	-	512	500	-
Stage 1	-	-	-	-	-	-	743	691	-	810	740	-
Stage 2	-	-	-	-	-	-	808	740	-	740	691	-

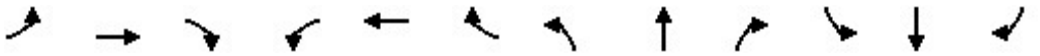
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10.4	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	664	1391	-	-	1302	-	-	512
HCM Lane V/C Ratio	0.005	-	-	-	0.003	-	-	0.002
HCM Control Delay (s)	10.4	0	-	-	7.8	0	-	12
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		50	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.999			0.964				0.850		0.988	0.850
Flt Protected		0.992			0.999						0.956	
Satd. Flow (prot)	0	1749	0	0	1699	0	0	1765	1500	0	1583	1425
Flt Permitted		0.992			0.999						0.956	
Satd. Flow (perm)	0	1749	0	0	1699	0	0	1765	1500	0	1583	1425
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1315			1308			136			136	
Travel Time (s)		29.9			29.7			3.1			3.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	37	205	1	4	145	54	0	0	1	32	0	26
Future Volume (vph)	37	205	1	4	145	54	0	0	1	32	0	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
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)	39	216	1	4	153	57	0	0	1	34	0	27
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	256	0	0	214	0	0	0	1	0	37	24

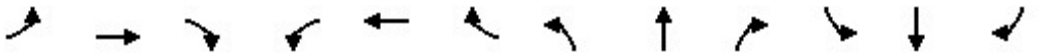
Intersection Summary

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	205	1	4	145	54	0	0	1	32	0	26
Future Vol, veh/h	37	205	1	4	145	54	0	0	1	32	0	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	216	1	4	153	57	0	0	1	34	0	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

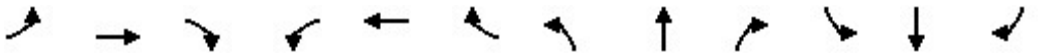
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.3	8.6	7.7	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	15%	2%	92%	0%
Vol Thru, %	100%	0%	84%	71%	0%	0%
Vol Right, %	0%	100%	0%	27%	8%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	1	243	203	35	23
LT Vol	0	0	37	4	32	0
Through Vol	0	0	205	145	0	0
RT Vol	0	1	1	54	3	23
Lane Flow Rate	0	1	256	214	36	25
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0	0.001	0.309	0.25	0.06	0.033
Departure Headway (Hd)	5.646	4.938	4.346	4.213	5.968	4.848
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	724	829	855	601	739
Service Time	3.379	2.67	2.359	2.226	3.697	2.576
HCM Lane V/C Ratio	0	0.001	0.309	0.25	0.06	0.034
HCM Control Delay	8.4	7.7	9.3	8.6	9.1	7.7
HCM Lane LOS	N	A	A	A	A	A
HCM 95th-tile Q	0	0	1.3	1	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.975			0.952			0.992	
Flt Protected		0.999			0.999			0.986			0.958	
Satd. Flow (prot)	0	1759	0	0	1719	0	0	1656	0	0	1677	0
Flt Permitted		0.999			0.999			0.986			0.958	
Satd. Flow (perm)	0	1759	0	0	1719	0	0	1656	0	0	1677	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1308			651			128			121	
Travel Time (s)		29.7			14.8			2.9			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	6	222	3	3	190	45	3	4	4	48	3	3
Future Volume (vph)	6	222	3	3	190	45	3	4	4	48	3	3
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
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)	8	292	4	4	250	59	4	5	5	63	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	313	0	0	14	0	0	71	0

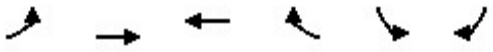
Intersection Summary

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	222	3	3	190	45	3	4	4	48	3	3
Future Vol, veh/h	6	222	3	3	190	45	3	4	4	48	3	3
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	292	4	4	250	59	4	5	5	63	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

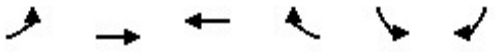
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	10.1	8.4	9.2
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	3%	1%	89%
Vol Thru, %	36%	96%	80%	6%
Vol Right, %	36%	1%	19%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	231	238	54
LT Vol	3	6	3	48
Through Vol	4	222	190	3
RT Vol	4	3	45	3
Lane Flow Rate	14	304	313	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.021	0.379	0.381	0.108
Departure Headway (Hd)	5.238	4.492	4.382	5.447
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	799	820	656
Service Time	3.299	2.522	2.412	3.498
HCM Lane V/C Ratio	0.021	0.38	0.382	0.108
HCM Control Delay	8.4	10.3	10.1	9.2
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	1.8	1.8	0.4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1765	1765	0	1765	0
Flt Permitted						
Satd. Flow (perm)	0	1765	1765	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		651	660		121	
Travel Time (s)		14.8	15.0		2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	271	237	0	0	0
Future Volume (vph)	0	271	237	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
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)	0	352	308	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	352	308	0	0	0

Intersection Summary

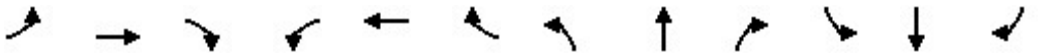
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	271	237	0	0	0
Future Vol, veh/h	0	271	237	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	352	308	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	308	0	-	0	660	308
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	352	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1253	-	-	-	428	732
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1253	-	-	-	428	732
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	712	-

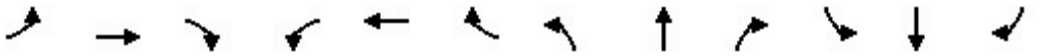
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1253	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.998			0.966				
Flt Protected								0.964			0.950	
Satd. Flow (prot)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Flt Permitted								0.964			0.950	
Satd. Flow (perm)	0	1765	0	0	1761	0	0	1643	0	0	1676	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		660			677			113			107	
Travel Time (s)		15.0			15.4			2.6			2.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	268	1	1	233	3	2	0	1	1	0	0
Future Volume (vph)	1	268	1	1	233	3	2	0	1	1	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
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)	1	344	1	1	299	4	3	0	1	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	346	0	0	304	0	0	4	0	0	1	0

Intersection Summary

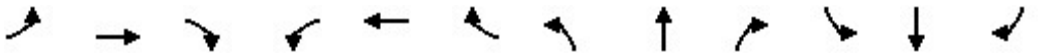
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	268	1	1	233	3	2	0	1	1	0	0
Future Vol, veh/h	1	268	1	1	233	3	2	0	1	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	344	1	1	299	4	3	0	1	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	345	0	0	650	652	345	650	650	301
Stage 1	-	-	-	-	-	-	347	347	-	303	303	-
Stage 2	-	-	-	-	-	-	303	305	-	347	347	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1258	-	-	1214	-	-	382	387	698	382	388	739
Stage 1	-	-	-	-	-	-	669	635	-	706	664	-
Stage 2	-	-	-	-	-	-	706	662	-	669	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1214	-	-	381	386	698	381	387	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	386	-	381	387	-
Stage 1	-	-	-	-	-	-	668	634	-	705	663	-
Stage 2	-	-	-	-	-	-	705	661	-	667	634	-

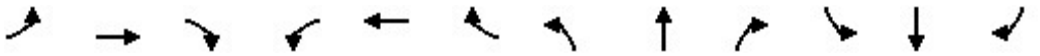
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.1	14.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	449	1258	-	-	1214	-	-	381
HCM Lane V/C Ratio	0.009	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	13.1	7.9	0	-	8	0	-	14.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.998			0.887			0.865	
Flt Protected					0.999			0.992				
Satd. Flow (prot)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Flt Permitted					0.999			0.992				
Satd. Flow (perm)	0	1763	0	0	1759	0	0	1553	0	0	1526	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			632			106			144	
Travel Time (s)		15.4			14.4			2.4			3.3	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	268	2	6	234	3	1	0	4	0	0	1
Future Volume (vph)	1	268	2	6	234	3	1	0	4	0	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	1	335	3	8	293	4	1	0	5	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	339	0	0	305	0	0	6	0	0	1	0

Intersection Summary

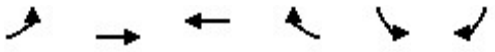
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	268	2	6	234	3	1	0	4	0	0	1
Future Vol, veh/h	1	268	2	6	234	3	1	0	4	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	335	3	8	293	4	1	0	5	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	297	0	0	338	0	0	651	652	337	652	651	295
Stage 1	-	-	-	-	-	-	339	339	-	311	311	-
Stage 2	-	-	-	-	-	-	312	313	-	341	340	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1264	-	-	1221	-	-	382	387	705	381	388	744
Stage 1	-	-	-	-	-	-	676	640	-	699	658	-
Stage 2	-	-	-	-	-	-	699	657	-	674	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1264	-	-	1221	-	-	379	384	705	376	385	744
Mov Cap-2 Maneuver	-	-	-	-	-	-	379	384	-	376	385	-
Stage 1	-	-	-	-	-	-	675	639	-	698	653	-
Stage 2	-	-	-	-	-	-	692	652	-	669	638	-

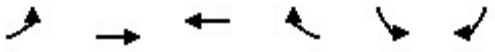
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	11	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	602	1264	-	-	1221	-	-	744
HCM Lane V/C Ratio	0.01	0.001	-	-	0.006	-	-	0.002
HCM Control Delay (s)	11	7.9	0	-	8	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.914	
Flt Protected		0.996			0.982	
Satd. Flow (prot)	0	1758	1751	0	1584	0
Flt Permitted		0.996			0.982	
Satd. Flow (perm)	0	1758	1751	0	1584	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		632	663		1323	
Travel Time (s)		14.4	15.1		30.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	22	251	233	14	9	15
Future Volume (vph)	22	251	233	14	9	15
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
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)	28	314	291	18	11	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	342	309	0	30	0

Intersection Summary

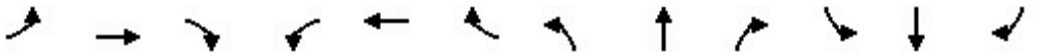
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	251	233	14	9	15
Future Vol, veh/h	22	251	233	14	9	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	314	291	18	11	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	309	0	-	0	670	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	370	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1252	-	-	-	422	740
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	699	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1252	-	-	-	411	740
Mov Cap-2 Maneuver	-	-	-	-	411	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	699	-

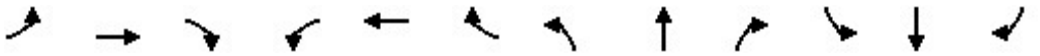
Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1252	-	-	-	569
HCM Lane V/C Ratio	0.022	-	-	-	0.053
HCM Control Delay (s)	7.9	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.993			0.865			0.919	
Flt Protected		0.996									0.980	
Satd. Flow (prot)	0	1758	0	0	1752	0	0	1526	0	0	1589	0
Flt Permitted		0.996									0.980	
Satd. Flow (perm)	0	1758	0	0	1752	0	0	1526	0	0	1589	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			726			262			181	
Travel Time (s)		15.1			16.5			6.0			4.1	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	237	0	2	234	13	0	0	2	8	0	12
Future Volume (vph)	20	237	0	2	234	13	0	0	2	8	0	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
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)	25	296	0	3	293	16	0	0	3	10	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	0	0	312	0	0	3	0	0	25	0

Intersection Summary

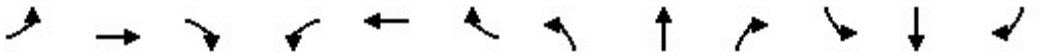
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	20	237	0	2	234	13	0	0	2	8	0	12
Future Vol, veh/h	20	237	0	2	234	13	0	0	2	8	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	296	0	3	293	16	0	0	3	10	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	296	0	0	661	661	296	655	653	301
Stage 1	-	-	-	-	-	-	346	346	-	307	307	-
Stage 2	-	-	-	-	-	-	315	315	-	348	346	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1252	-	-	1265	-	-	376	383	743	379	387	739
Stage 1	-	-	-	-	-	-	670	635	-	703	661	-
Stage 2	-	-	-	-	-	-	696	656	-	668	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1252	-	-	1265	-	-	361	373	743	370	377	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	361	373	-	370	377	-
Stage 1	-	-	-	-	-	-	654	620	-	686	659	-
Stage 2	-	-	-	-	-	-	680	654	-	650	620	-

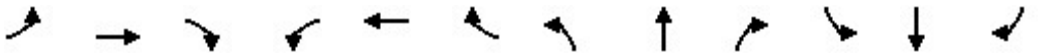
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	9.9	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	1252	-	-	1265	-	-	528
HCM Lane V/C Ratio	0.003	0.02	-	-	0.002	-	-	0.047
HCM Control Delay (s)	9.9	7.9	0	-	7.9	0	-	12.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1



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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.985			0.978			0.964	
Flt Protected		0.989			0.988			0.986			0.995	
Satd. Flow (prot)	0	1767	0	0	1813	0	0	1796	0	0	1787	0
Flt Permitted		0.989			0.988			0.986			0.995	
Satd. Flow (perm)	0	1767	0	0	1813	0	0	1796	0	0	1787	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		726			415			137			125	
Travel Time (s)		16.5			9.4			3.1			2.8	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	62	138	86	48	125	22	70	144	41	22	157	64
Future Volume (vph)	62	138	86	48	125	22	70	144	41	22	157	64
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)	70	157	98	55	142	25	80	164	47	25	178	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	0	222	0	0	291	0	0	276	0

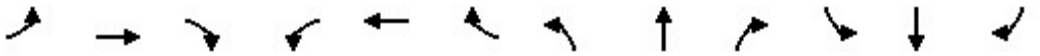
Intersection Summary

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	138	86	48	125	22	70	144	41	22	157	64
Future Vol, veh/h	62	138	86	48	125	22	70	144	41	22	157	64
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	157	98	55	142	25	80	164	47	25	178	73
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

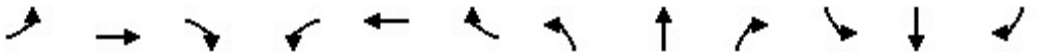
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.3	13.6	15.4	14.7
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	22%	25%	9%
Vol Thru, %	56%	48%	64%	65%
Vol Right, %	16%	30%	11%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	255	286	195	243
LT Vol	70	62	48	22
Through Vol	144	138	125	157
RT Vol	41	86	22	64
Lane Flow Rate	290	325	222	276
Geometry Grp	1	1	1	1
Degree of Util (X)	0.501	0.548	0.395	0.473
Departure Headway (Hd)	6.222	6.074	6.416	6.162
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	577	592	558	583
Service Time	4.278	4.127	4.475	4.218
HCM Lane V/C Ratio	0.503	0.549	0.398	0.473
HCM Control Delay	15.4	16.3	13.6	14.7
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	2.8	3.3	1.9	2.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected					0.950							
Satd. Flow (prot)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	1765	0	0	1676	0	0	1526	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		259			342			1323			218	
Travel Time (s)		5.9			7.8			30.1			5.0	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
Future Volume (vph)	0	0	0	20	0	0	0	0	33	0	0	0
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)	0	0	0	22	0	0	0	0	36	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	22	0	0	36	0	0	0	0

Intersection Summary

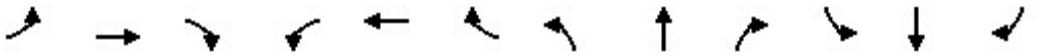
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Future Vol, veh/h	0	0	0	20	0	0	0	0	33	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	0	0	0	0	36	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	19	37	1	19	19	18	1	0	0	36	0	0
Stage 1	1	1	-	18	18	-	-	-	-	-	-	-
Stage 2	18	36	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	995	855	1084	995	875	1061	1622	-	-	1575	-	-
Mov Cap-2 Maneuver	995	855	-	995	875	-	-	-	-	-	-	-
Stage 1	1022	895	-	1001	880	-	-	-	-	-	-	-
Stage 2	1001	865	-	1022	895	-	-	-	-	-	-	-

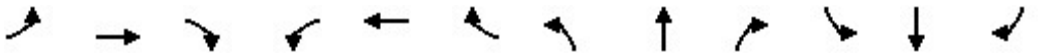
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.7	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	995	1575	-	-
HCM Lane V/C Ratio	-	-	-	-	0.022	-	-	-
HCM Control Delay (s)	0	-	-	0	8.7	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	125		0	200		180	230		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.962			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1698	0	1583	1507	0	1583	3353	1500	1583	3353	1500
Flt Permitted	0.580			0.744			0.950			0.950		
Satd. Flow (perm)	967	1698	0	1240	1507	0	1583	3353	1500	1583	3353	1500
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			184				176			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			221			279			888	
Travel Time (s)		14.1			5.0			6.3			20.2	

Intersection Summary	
Area Type:	Other



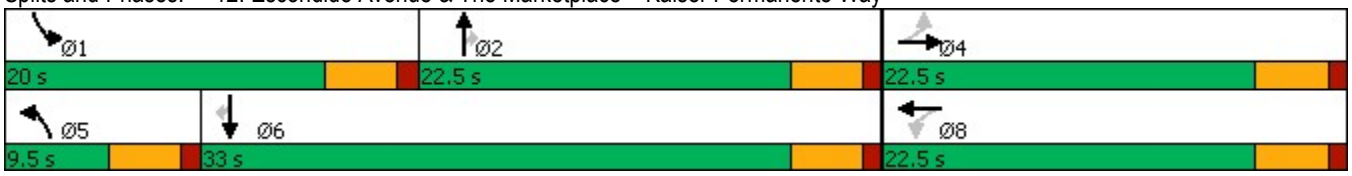
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	76	15	5	164	5	182	3	692	151	304	918	37
Future Volume (vph)	76	15	5	164	5	182	3	692	151	304	918	37
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
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)	77	15	5	166	5	184	3	699	153	307	927	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	20	0	166	189	0	3	699	153	307	927	37

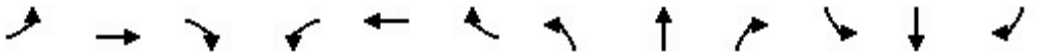
Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	76	15	164	5	3	692	151	304	918	37
Future Volume (vph)	76	15	164	5	3	692	151	304	918	37
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phase	4	4	8	8	5	2	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
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	20.0	33.0	33.0
Total Split (%)	34.6%	34.6%	34.6%	34.6%	14.6%	34.6%	34.6%	30.8%	50.8%	50.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.6	12.6	12.6	12.6	5.1	16.5	16.5	14.4	33.8	33.8
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.09	0.29	0.29	0.25	0.59	0.59
v/c Ratio	0.36	0.05	0.61	0.40	0.02	0.72	0.27	0.77	0.47	0.04
Control Delay	24.7	15.8	31.0	6.6	27.7	24.4	4.2	37.6	9.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	15.8	31.0	6.6	27.7	24.4	4.2	37.6	9.1	0.1
LOS	C	B	C	A	C	C	A	D	A	A
Approach Delay		22.9		18.0		20.8			15.7	
Approach LOS		C		B		C			B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 57.3	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Escondido Avenue & The Marketplace – Kaiser Permanente Way

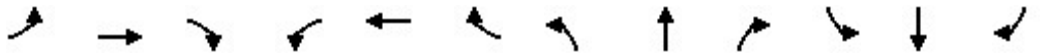




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	15	5	164	5	182	3	692	151	304	918	37
Future Volume (veh/h)	76	15	5	164	5	182	3	692	151	304	918	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	77	15	5	166	5	184	3	699	153	307	927	37
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	279	93	420	9	322	7	955	426	364	1710	763
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.28	0.28	0.23	0.51	0.51
Sat Flow, veh/h	1128	1272	424	1315	40	1468	1594	3367	1502	1594	3367	1502
Grp Volume(v), veh/h	77	0	20	166	0	189	3	699	153	307	927	37
Grp Sat Flow(s),veh/h/ln	1128	0	1696	1315	0	1508	1594	1683	1502	1594	1683	1502
Q Serve(g_s), s	3.3	0.0	0.5	5.7	0.0	5.6	0.1	9.4	4.1	9.3	9.4	0.6
Cycle Q Clear(g_c), s	8.9	0.0	0.5	6.2	0.0	5.6	0.1	9.4	4.1	9.3	9.4	0.6
Prop In Lane	1.00		0.25	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	372	420	0	331	7	955	426	364	1710	763
V/C Ratio(X)	0.29	0.00	0.05	0.40	0.00	0.57	0.46	0.73	0.36	0.84	0.54	0.05
Avail Cap(c_a), veh/h	420	0	607	601	0	539	158	1204	537	491	1907	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	15.5	18.0	0.0	17.5	25.0	16.3	14.4	18.6	8.4	6.2
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.6	0.0	1.5	43.4	1.7	0.5	9.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	1.6	0.0	1.9	0.1	3.4	1.3	4.0	2.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	15.6	18.6	0.0	19.1	68.4	18.0	14.9	28.2	8.7	6.3
LnGrp LOS	C	A	B	B	A	B	E	B	B	C	A	A
Approach Vol, veh/h		97			355			855			1271	
Approach Delay, s/veh		20.8			18.8			17.6			13.3	
Approach LOS		C			B			B			B	

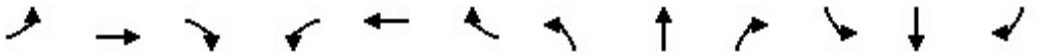
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	18.8		15.6	4.7	30.1		15.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	18.0		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	11.3	11.4		10.9	2.1	11.4		8.2				
Green Ext Time (p_c), s	0.4	2.8		0.2	0.0	6.3		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1800	1800	1600	1800	1800	1600	1800	1800	1700	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		205	370		250	205		215	260		260
Storage Lanes	1		1	2		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1574	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	4818	1500	2891	3353	1500	2891	1765	1500	1583	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			465			182			117		131	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		472			531			888			363	
Travel Time (s)		10.7			12.1			20.2			8.3	

Intersection Summary	
Area Type:	Other



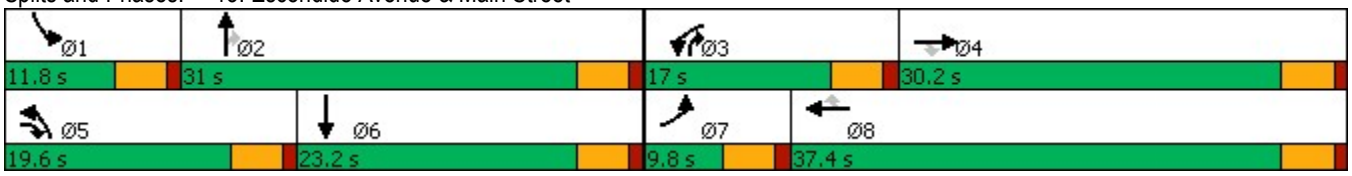
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	1369	680	382	1031	12	489	218	296	45	81	211
Future Volume (vph)	53	1369	680	382	1031	12	489	218	296	45	81	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
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)	54	1397	694	390	1052	12	499	222	302	46	83	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1397	694	390	1052	12	499	222	302	46	298	0

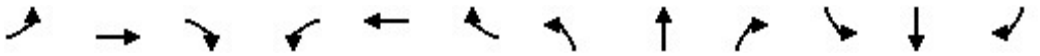
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	53	1369	680	382	1031	12	489	218	296	45	81
Future Volume (vph)	53	1369	680	382	1031	12	489	218	296	45	81
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	5	3	8	8	5	2	3	1	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	9.5	9.5	22.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	9.8	30.2	19.6	17.0	37.4	37.4	19.6	31.0	17.0	11.8	23.2
Total Split (%)	10.9%	33.6%	21.8%	18.9%	41.6%	41.6%	21.8%	34.4%	18.9%	13.1%	25.8%
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	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.3	25.8	45.4	12.5	35.2	35.2	15.1	26.9	44.0	6.8	14.1
Actuated g/C Ratio	0.06	0.30	0.53	0.15	0.41	0.41	0.18	0.31	0.51	0.08	0.16
v/c Ratio	0.55	0.96	0.68	0.92	0.76	0.02	0.98	0.40	0.37	0.37	0.81
Control Delay	62.9	47.5	8.9	66.7	28.1	0.1	72.0	27.0	9.7	47.4	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	47.5	8.9	66.7	28.1	0.1	72.0	27.0	9.7	47.4	36.5
LOS	E	D	A	E	C	A	E	C	A	D	D
Approach Delay		35.4			38.2			43.8			38.0
Approach LOS		D			D			D			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 85.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Escondido Avenue & Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1369	680	382	1031	12	489	218	296	45	81	211
Future Volume (veh/h)	53	1369	680	382	1031	12	489	218	296	45	81	211
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	1673	1772	1772	1575	1772	1772	1575	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	54	1397	694	390	1052	12	499	222	302	46	83	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1381	681	404	1290	575	488	598	715	61	91	235
Arrive On Green	0.04	0.29	0.29	0.14	0.38	0.38	0.17	0.34	0.34	0.04	0.21	0.21
Sat Flow, veh/h	1594	4837	1502	2910	3367	1502	2910	1772	1502	1594	437	1131
Grp Volume(v), veh/h	54	1397	694	390	1052	12	499	222	302	46	0	298
Grp Sat Flow(s),veh/h/ln	1594	1612	1502	1455	1683	1502	1455	1772	1502	1594	0	1568
Q Serve(g_s), s	3.0	25.7	25.7	12.0	25.2	0.4	15.1	8.5	11.9	2.6	0.0	16.7
Cycle Q Clear(g_c), s	3.0	25.7	25.7	12.0	25.2	0.4	15.1	8.5	11.9	2.6	0.0	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	66	1381	681	404	1290	575	488	598	715	61	0	326
V/C Ratio(X)	0.82	1.01	1.02	0.96	0.82	0.02	1.02	0.37	0.42	0.76	0.00	0.91
Avail Cap(c_a), veh/h	94	1381	681	404	1290	575	488	598	715	129	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	32.2	24.6	38.5	24.9	17.3	37.5	22.6	15.4	42.9	0.0	34.9
Incr Delay (d2), s/veh	30.1	27.0	39.5	35.6	4.2	0.0	46.4	0.4	0.4	17.5	0.0	29.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	13.1	20.9	6.2	10.3	0.2	8.4	3.5	3.9	1.3	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	59.2	64.1	74.1	29.1	17.3	83.9	23.0	15.8	60.4	0.0	64.0
LnGrp LOS	E	F	F	E	C	B	F	C	B	E	A	E
Approach Vol, veh/h		2145			1454			1023			344	
Approach Delay, s/veh		61.1			41.1			50.6			63.5	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	34.9	17.0	30.2	19.6	23.2	8.2	39.0
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	7.3	26.5	12.5	25.7	15.1	18.7	5.3	32.9
Max Q Clear Time (g_c+I1), s	4.6	13.9	14.0	27.7	17.1	18.7	5.0	27.2
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	3.3

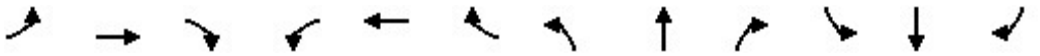
Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Notes

User approved changes to right turn type.

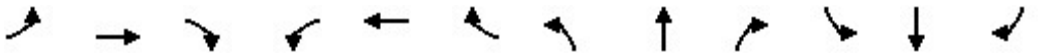
Appendix K

Project Opening Year (2023) With Cumulative Projects
With Project Conditions - Improvements
Intersection Analysis Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.967				0.850			
Flt Protected		0.994			0.964					0.950		
Satd. Flow (prot)	0	1651	0	0	1645	0	0	1765	1500	1676	1765	0
Flt Permitted		0.994			0.964					0.950		
Satd. Flow (perm)	0	1651	0	0	1645	0	0	1765	1500	1676	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	6	6	300	8	99	0	397	110	44	484	1
Future Volume (vph)	2	6	6	300	8	99	0	397	110	44	484	1
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)	2	7	7	341	9	113	0	451	125	50	550	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	463	0	0	451	125	50	551	0

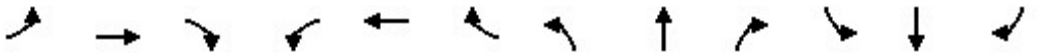
Intersection Summary

Intersection	
Intersection Delay, s/veh	69.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	6	6	300	8	99	0	397	110	44	484	1
Future Vol, veh/h	2	6	6	300	8	99	0	397	110	44	484	1
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	7	341	9	113	0	451	125	50	550	1
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

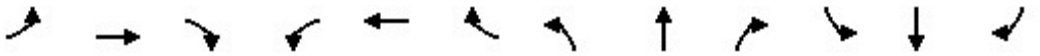
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13	46.9	45	111.7
HCM LOS	B	E	E	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	14%	74%	100%	0%
Vol Thru, %	100%	0%	43%	2%	0%	100%
Vol Right, %	0%	100%	43%	24%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	397	110	14	407	44	485
LT Vol	0	0	2	300	44	0
Through Vol	397	0	6	8	0	484
RT Vol	0	110	6	99	0	1
Lane Flow Rate	451	125	16	462	50	551
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.93	0.233	0.04	0.899	0.113	1.165
Departure Headway (Hd)	7.836	7.11	9.566	7.387	8.127	7.609
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	509	377	495	444	479
Service Time	5.536	4.81	7.566	5.387	5.829	5.311
HCM Lane V/C Ratio	0.97	0.246	0.042	0.933	0.113	1.15
HCM Control Delay	54.2	12	13	46.9	11.9	120.7
HCM Lane LOS	F	B	B	E	B	F
HCM 95th-tile Q	10.8	0.9	0.1	10.1	0.4	20.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.927				0.850		0.998	
Flt Protected		0.985			0.978					0.950		
Satd. Flow (prot)	0	1702	0	0	1600	0	0	1765	1500	1676	1761	0
Flt Permitted		0.985			0.978					0.950		
Satd. Flow (perm)	0	1702	0	0	1600	0	0	1765	1500	1676	1761	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		503			1308			179			150	
Travel Time (s)		11.4			29.7			4.1			3.4	

Intersection Summary	
Area Type:	Other



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	6	2	71	2	87	3	433	110	115	317	3
Future Volume (vph)	3	6	2	71	2	87	3	433	110	115	317	3
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)	4	7	2	86	2	105	4	522	133	139	382	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	193	0	0	526	133	139	386	0

Intersection Summary

Intersection	
Intersection Delay, s/veh	22.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	2	71	2	87	3	433	110	115	317	3
Future Vol, veh/h	3	6	2	71	2	87	3	433	110	115	317	3
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	2	86	2	105	4	522	133	139	382	4
Number of Lanes	0	1	0	0	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.6	12.8	30.4	17.3
HCM LOS	B	B	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	0%	27%	44%	100%	0%
Vol Thru, %	99%	0%	55%	1%	0%	99%
Vol Right, %	0%	100%	18%	54%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	436	110	11	160	115	320
LT Vol	3	0	3	71	115	0
Through Vol	433	0	6	2	0	317
RT Vol	0	110	2	87	0	3
Lane Flow Rate	525	133	13	193	139	386
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.868	0.193	0.027	0.343	0.253	0.649
Departure Headway (Hd)	5.948	5.235	7.253	6.404	6.575	6.061
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	609	684	490	559	545	594
Service Time	3.697	2.984	5.351	4.467	4.33	3.815
HCM Lane V/C Ratio	0.862	0.194	0.027	0.345	0.255	0.65
HCM Control Delay	35.8	9.2	10.6	12.8	11.6	19.4
HCM Lane LOS	E	A	B	B	B	C
HCM 95th-tile Q	9.9	0.7	0.1	1.5	1	4.7