TRAFFIC IMPACT FEE STUDY FOR THE CITY OF MONROVIA SOUTH OF HUNTINGTON

MONROVIA, CALIFORNIA

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APRIL 2019

PREPARED FOR

CITY OF MONROVIA



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April 2019

Prepared for:

CITY OF MONROVIA

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Chapter 1 Introduction

This study presents the analysis for the Traffic Impact Fee (TIF) Study (Project) for the portion of the City of Monrovia, California (City) south of Huntington Drive. The methodology and base assumptions used in the analysis are consistent with the requirements of the State of California legislation that governs the establishment of TIF programs (State Assembly Bill No. 1600, Cortese, 1987) (State legislation). Specifically, a direct nexus has to be established between the fee and the improvements that are necessary to support the new development that will participate in the fee program. This report documents that nexus.

STUDY AREA

The Study Area is comprised of the portion of the City south of Huntington Drive and is focused on the 29 key intersections where future congestion may reach undesirable levels of service (LOS). Included in the analysis is the identification of the future traffic growth that would warrant the installation of a traffic signal at currently unsignalized intersections within the Study Area.

The City is located within the San Gabriel Valley in the County of Los Angeles and encompasses approximately 13.71 square miles. Adjacent cities include Pasadena, Arcadia, Duarte, Bradbury, and Sierra Madre. The City is generally bound by the Angeles National Forest to the north, Mountain Avenue to the east, Live Oak Avenue to the south, and 5th Avenue to the west, but portions of the City extend beyond these streets.

The Study Area for this TIF study is generally bound by Huntington Drive to the north, 5th Avenue to the west, Live Oak Avenue to the south, and Mountain Avenue to the east.

Figure 1 presents the location of the City in relation to the region and Figure 2 depicts the Study Area for this study.

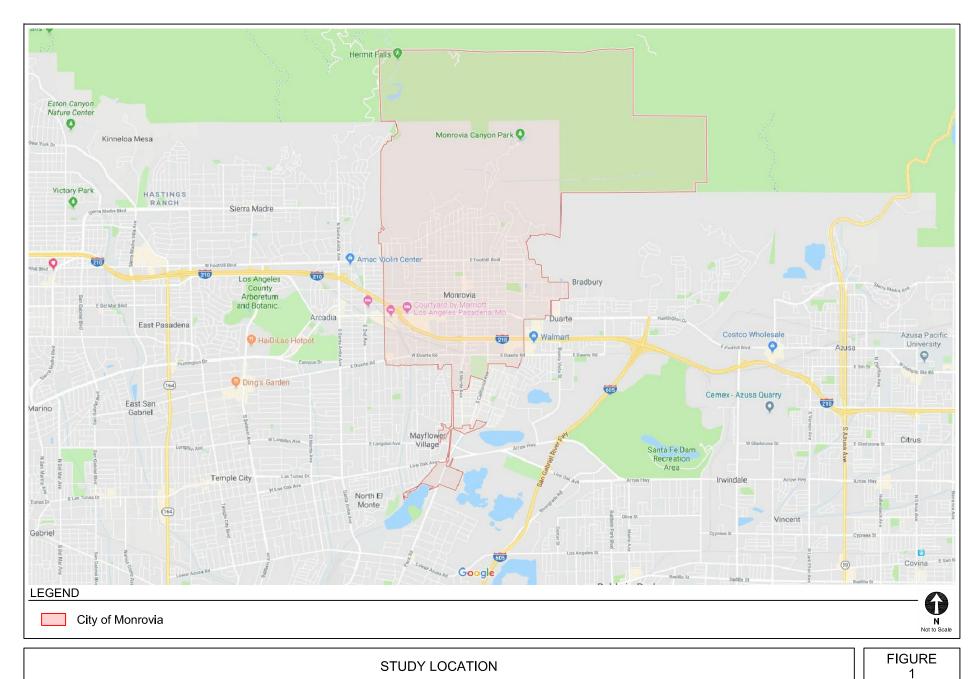
TIF DESCRIPTION

The TIF is a trip-based transportation fee imposed on new and redeveloping projects within the City. The TIF is based on the number of projected new trips assumed to be developed within the City over an approximate 20-year period, as well as the cost in dollars of the improvements required to support the increase in traffic. While some traffic growth in the City is caused by regional developments not located in the City, the TIF is only applied to projects within the City. While the fee as calculated in this study is based on the number of afternoon peak hour trips generated by new development the fee can be based on number of dwelling units or 1,000 square feet (sf) of development by applying trip factors to those uses to determine the number of afternoon peak hour trips generated by each land use.

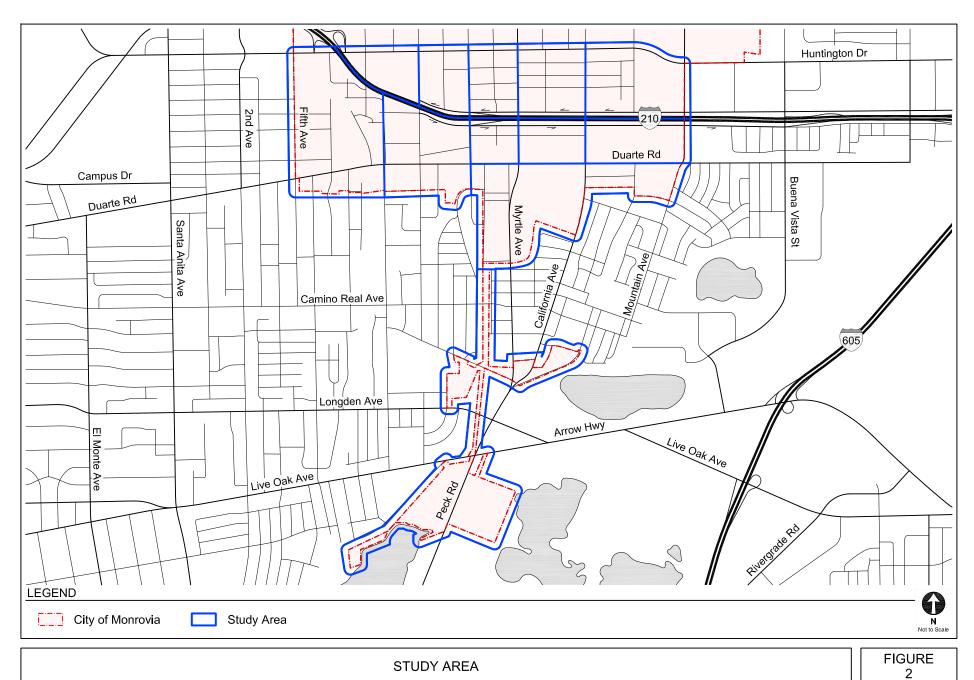
ORGANIZATION OF REPORT

This report is divided into seven chapters, including this introduction. Chapter 2 describes the methodology used to analyze intersection operating characteristics and assess significant traffic impacts. Chapter 3 describes the existing circulation system, traffic volumes, and conditions in the Study Area. The methodologies used to forecast future background traffic volumes are described and applied in Chapter 4, which also includes an assessment of intersection operating conditions of the existing street system after future volume growth is considered and identification of traffic impacts caused by the growth in volumes under Future Conditions. Chapter 5 discusses the mitigation measures required to support future traffic volumes. Chapter 6 presents the cost estimates for the improvements identified in the previous chapter as well as provides the updated TIF fee. A brief summary of the study conclusions is presented in Chapter 7. The appendices contain supporting documentation, traffic counts and analysis worksheets.









Chapter 2

Traffic Impact Analysis Methodology

This chapter describes the various traffic scenarios analyzed, the methodologies used for assessing intersection and street segment operating conditions, and significant traffic impact criteria for the jurisdiction overseeing the analysis.

STUDY SCOPE AND METHODOLOGY

The scope of analysis for this study was developed in consultation with City staff. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach.

The study evaluates the potential for impacts caused by traffic growth on the City street system surrounding the site. The following analysis conditions are analyzed for the Project:

- Existing Conditions (Year 2018) The analysis of existing traffic conditions provides a basis for the assessment of future development conditions. The Existing Conditions analysis includes a description of key area streets, traffic volumes, and current operating conditions. Intersection turning movement counts for typical weekday morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak periods were conducted between August 2016 and October 2018 when local schools were in session. Fieldwork (lane configurations, signal phasing, parking restrictions, etc.) for the analyzed intersections was collected in November 2018.
 - Future without Improvements Conditions (Year 2040) This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of regional growth and related projects in the City by Year 2040. The Future without Improvements traffic conditions are projected by adding ambient traffic growth, known related projects, and *Monrovia General Plan* (City of Monrovia, September 2018) (General Plan) allowances to existing conditions. This analysis provides the baseline conditions at full buildout. For this study, the ambient traffic growth rate is based on a Southern California Association of Governments (SCAG) model run of the Study Area that predicts traffic growth on the City streets based on regional growth.

• <u>Future with Mitigations Conditions (Year 2040)</u> – This analysis includes all mitigation measures that are required to achieve satisfactory operation at all study intersections per the General Plan. The TIF will be based on the cost of these mitigation measures.

INTERSECTION LEVEL OF SERVICE METHODOLOGY

LOS categories range from excellent, nearly free-flow traffic at LOS A to stop-and-go conditions at LOS F. LOS D is typically recognized as an acceptable service level in urban areas, although many urbanized areas experience intersections that operate at LOS E or F in the morning and afternoon peak hours.

Of the 29 study intersections, 23 are currently controlled by traffic signals. There are a variety of standard methodologies to analyze LOS for signalized intersections. The Intersection Capacity Utilization (ICU) methodology (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980) is required by the City for intersection LOS analysis and has been used in this study. The ICU methodology determines the intersection volume-to-capacity (V/C) ratio and corresponding LOS for the turning movements and intersection characteristics at signalized intersections based on the definitions described in Table 1. This methodology is consistent with the capacity calculation methodology used in the previous traffic studies in the City.

Intersection capacity calculations were conducted to measure the LOS of the intersections using an overall intersection capacity of 1,600 vehicles per hour per lane (vphpl) and by adding a factor of 0.10 to account for the yellow interval clearance (loss time).

Six of the 29 study intersections are currently unsignalized. As detailed in Chapter 4, signal warrant analyses were conducted at the six intersections under future conditions to determine if the installation of a traffic signal is warranted.

ACCEPTABLE LEVELS OF SERVICE

The General Plan has set thresholds for acceptable peak hour LOS operation at the signalized intersections within the City. City-wide, the target for acceptable peak hour LOS is LOS D. LOS

D is the target performance level at all intersections in the City. According to the General Plan, LOS E or F operation at an intersection is considered unacceptable.

TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS
INTERSECTION CAPACITY UTILIZATION METHODOLOGY

Level of Service	Intersection Capacity Utilization	Definition	
А	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	
В	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	
С	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	

<u>Source</u>: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

Chapter 3 Existing Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of Existing Conditions in the Project Study Area. The Existing Conditions analysis relevant to this study includes an assessment of the existing street system and intersections and an analysis of traffic volumes and current operating conditions.

STUDY AREA

As described above, the Study Area includes the portion of the City located south of Huntington Drive. The TIF applies mainly to the arterial street system and, in some cases, to the most important collector streets that feed traffic to the arterials. The TIF also includes improvements to the freeway ramp intersections.

This Study Area was established by reviewing the existing intersection/corridor operations, peak hour vehicle travel movements and the existing performance of the street system, which indicated the intersections that should be analyzed as part of this study.

KEY INTERSECTIONS

The 29 key intersections with the greatest potential to experience significant traffic impacts due to the likelihood of increased traffic over time caused by both internal and external growth were selected:

- 1. Huntington Drive & 5th Avenue
- 2. Huntington Drive & Interstate 210 (I-210) Eastbound Ramps
- 3. Huntington Drive & I-210 Westbound Ramps
- 4. Huntington Drive & Monterey Avenue
- 5. Huntington Drive & Mayflower Avenue

- 6. Huntington Drive & Magnolia Avenue
- 7. Huntington Drive & Primrose Avenue (unsignalized)
- 8. Huntington Drive & Myrtle Avenue
- 9. Huntington Drive & Ivy Avenue (unsignalized)
- 10. Huntington Drive & California Avenue
- 11. Huntington Drive & Mountain Avenue
- 12. Central Avenue & Mayflower Avenue (unsignalized)
- 13. Central Avenue & Magnolia Avenue (unsignalized)
- 14. Central Avenue & Myrtle Avenue
- 15. Central Avenue & California Avenue
- 16. Central Avenue & Mountain Avenue
- 17. Evergreen Avenue & Mayflower Avenue (unsignalized)
- 18. Evergreen Avenue & Magnolia Avenue (unsignalized)
- 19. Evergreen Avenue & Myrtle Avenue
- 20. Evergreen Avenue & California Avenue
- 21. Evergreen Avenue & Mountain Avenue
- 22. Pomona Avenue & Myrtle Avenue
- 23. Duarte Road & 5th Avenue
- 24. Duarte Road & Mayflower Avenue
- 25. Duarte Road & Magnolia Avenue
- 26. Duarte Road & Peck Road
- 27. Duarte Road & Myrtle Avenue
- 28. Duarte Road & California Avenue
- 29. Duarte Road & Mountain Avenue

To the extent that these intersections operate within the City's LOS criteria, the street system and the minor intersections along the routes will also perform satisfactorily. If there are closely spaced study intersections that fail to meet the City's performance criteria, a corridor improvement may be the appropriate solution.

Figure 3 shows a map of the study intersections and Figure 4 shows the existing lane configurations at the study intersections.

EXISTING STREET SYSTEM

As shown in Figure 3, the 29 study intersections essentially follow the arterial streets and the freeway connections in the City. The discussion below highlights the characteristics of the existing street system serving the City.

<u>Freeways</u>

Primary regional access to the City site is provided by I-210, which generally runs in the east-west direction through the City. Interchanges that provide direct access to the City include Huntington Drive, Myrtle Avenue, and Mountain Avenue.

Roadways

The existing street system in the City consists of a regional roadway system including primary and secondary arterials, collector streets and local streets. The arterials, collectors, and selected local streets in the Study Area offer sub-regional and local access and circulation opportunities. These transportation facilities generally provide two to four travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 40 miles per hour (mph) on the major and secondary arterials, collector streets, and local streets.

The arterials providing regional and citywide movement throughout the City include:

North-South Streets

- Myrtle Avenue south of Huntington Drive (Primary)
- California Avenue south of Huntington Drive (Secondary)
- Mountain Avenue (Secondary)

East-West Streets

- Huntington Drive (Primary)
- Duarte Road (Secondary)

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study and analyzes the resulting operating conditions at each intersection.

Existing Traffic Volumes

Intersection turning movement counts for typical weekday morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak periods were collected within the last two years while local schools were in session. The existing intersection traffic volumes are provided in Figure 5. The summary data worksheets of turning movement counts at the study intersections are available in Appendix A.

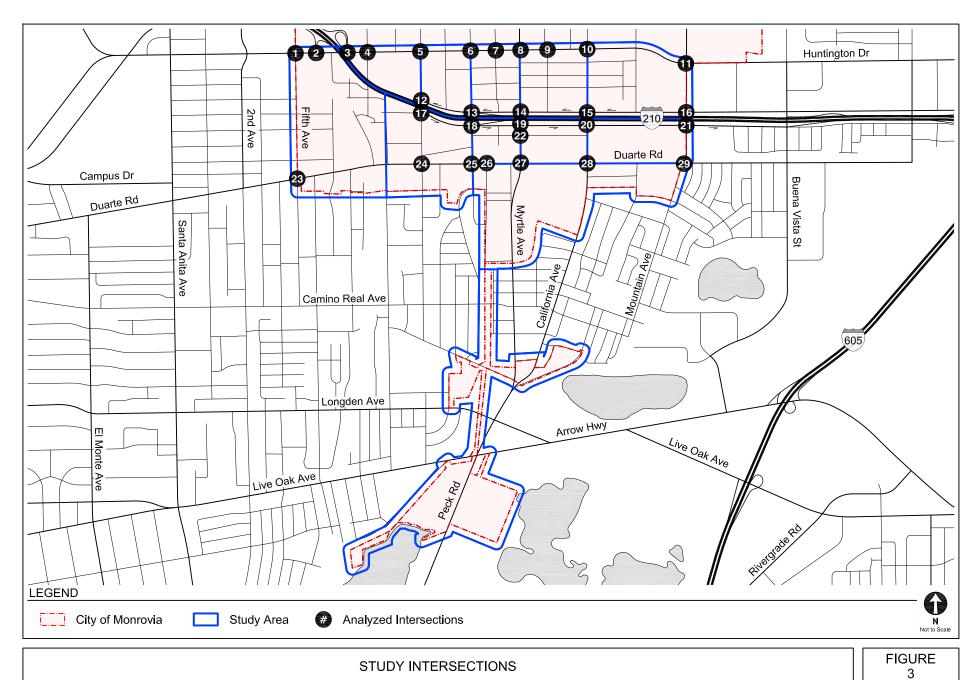
The traffic volumes illustrated in Figure 5 were analyzed to determine the existing operating conditions at the signalized study intersections and used as the base for determining future volumes for signal warrant analysis at the unsignalized study intersections.

Existing Intersection Levels of Service

Table 2 summarizes the weekday morning and afternoon peak hour LOS analysis for the 23 signalized study intersections under Existing Conditions (Year 2018). As shown in Table 2, 22 of the 23 signalized study intersections operate at LOS D or better under Existing Conditions. Only the intersection of Huntington Drive & Mountain Avenue does not currently meet its LOS performance standard according to the General Plan criteria.

The LOS calculation worksheets are provided in Appendix B.



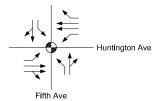


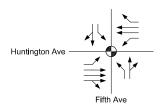


EXISTING CONDITIONS (YEAR 2018)

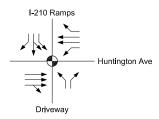
FUTURE CONDITIONS (YEAR 2040)

1. Huntington Avenue & Fifth Avenue



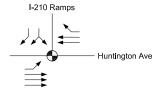


2. Huntington Avenue & I-210 EB Ramps



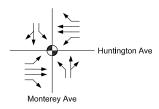
Same as Existing Conditions

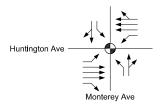
3. Huntington Avenue & I-210 WB Ramps



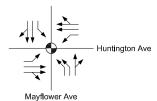
Same as Existing Conditions

4. Huntington Avenue & Monterey Avenue



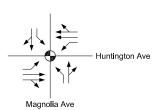


5. Huntington Avenue & Mayflower Avenue



Same as Existing Conditions

6. Huntington Avenue & Magnolia Avenue



Same as Existing Conditions



EXISTING CONDITIONS (YEAR 2018)

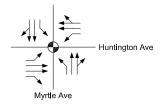
FUTURE CONDITIONS (YEAR 2040)

7. Huntington Avenue & Primrose Avenue



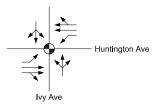
Same as Existing Conditions

8. Huntington Avenue & Myrtle Avenue



Same as Existing Conditions

9. Huntington Avenue & Ivy Avenue



Same as Existing Conditions

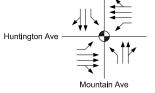
10. Huntington Avenue & California Avenue



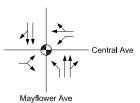
Same as Existing Conditions

11. Huntington Avenue & Mountain Avenue





12. Central Avenue & Mayflower Avenue



Same as Existing Conditions



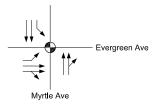
EXISTING CONDITIONS FUTURE CONDITIONS (YEAR 2018) (YEAR 2040) Same as Existing Conditions 13. Central Avenue & Central Ave Magnolia Avenue Magnolia Ave 14. Central Avenue & Central Ave Central Ave Myrtle Avenue Myrtle Ave Myrtle Ave Same as Existing Conditions 15. Central Avenue & Central Ave California Avenue California Ave 16. Central Avenue & Same as Central Ave **Existing Conditions** Mountain Avenue Mountain Ave Same as Existing Conditions 17. Evergreen Avenue & Evergreen Ave Mayflower Avenue Mayflower Ave Same as Existing Conditions 18. Evergreen Avenue & Evergreen Ave Magnolia Avenue Magnolia Ave

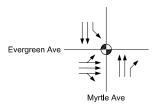


EXISTING CONDITIONS (YEAR 2018)

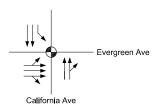
FUTURE CONDITIONS (YEAR 2040)

19. Evergreen Avenue & Myrtle Avenue



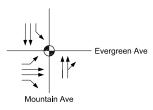


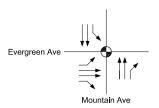
20. Evergreen Avenue & California Avenue



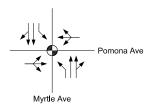
Same as Existing Conditions

21. Evergreen Avenue & Mountain Avenue



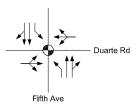


22. Pomona Avenue & Myrtle Avenue



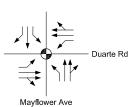
Same as Existing Conditions

23. Duarte Road & Fifth Avenue



Same as Existing Conditions

24. Duarte Road & Mayflower Avenue



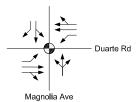
Same as Existing Conditions



EXISTING CONDITIONS (YEAR 2018)

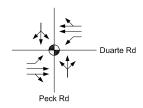
FUTURE CONDITIONS (YEAR 2040)

25. Duarte Road & Magnolia Avenue



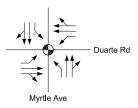
Same as Existing Conditions

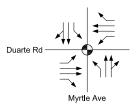
26. Duarte Road & Peck Road



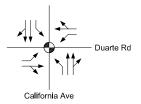
Same as Existing Conditions

27. Duarte Road & Myrtle Avenue



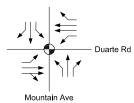


28. Duarte Road & California Avenue



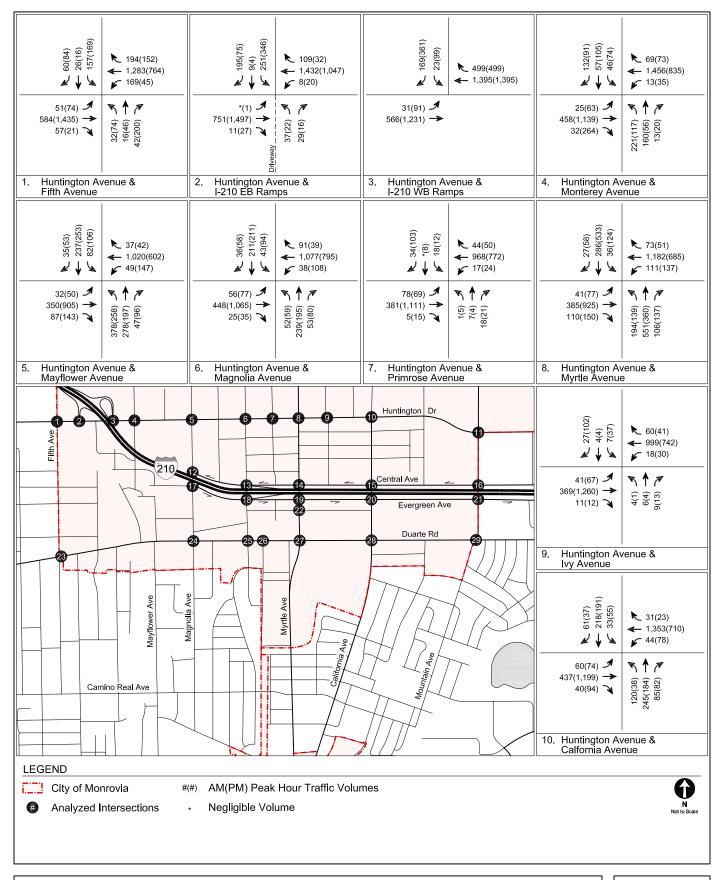
Same as Existing Conditions

29. Duarte Road & Mountain Avenue



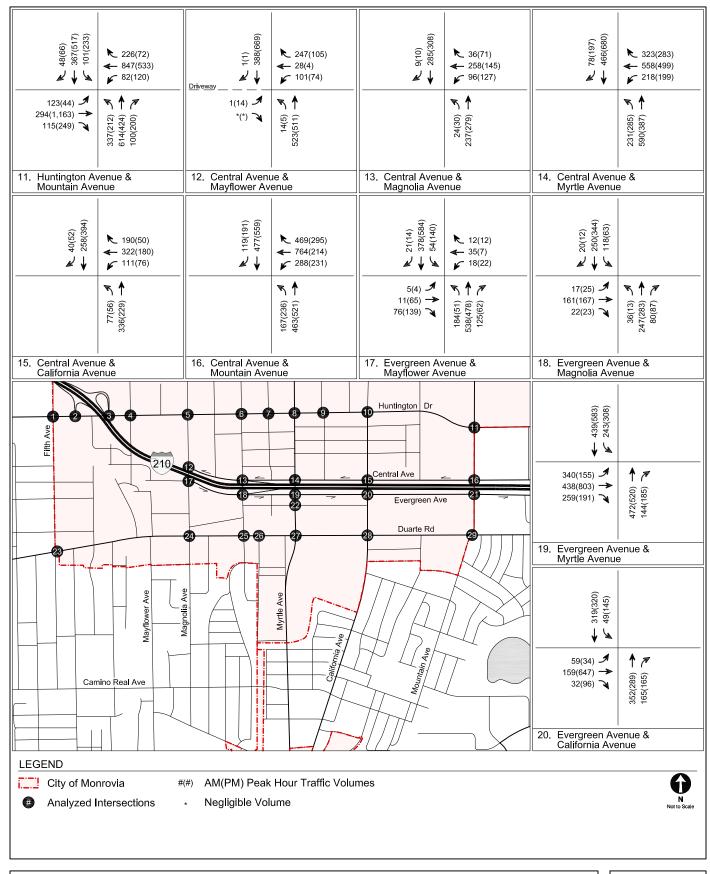
Same as Existing Conditions





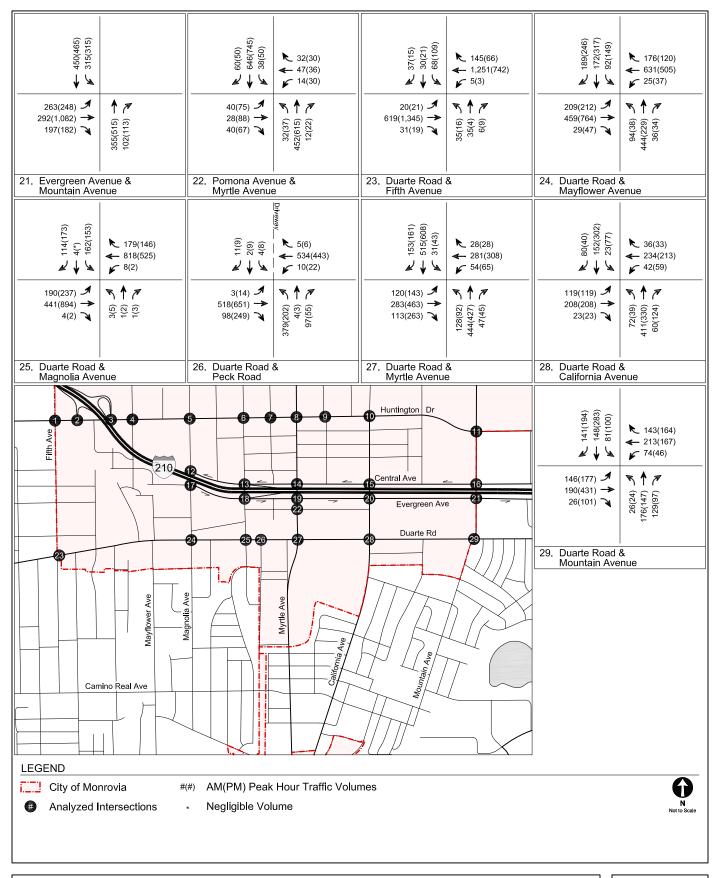
EXISTING CONDITIONS (YEAR 2018) PEAK HOUR TRAFFIC VOLUMES FIGURE 5





EXISTING CONDITIONS (YEAR 2018) PEAK HOUR TRAFFIC VOLUMES FIGURE 5 (CONT.)





EXISTING CONDITIONS (YEAR 2018) PEAK HOUR TRAFFIC VOLUMES FIGURE 5 (CONT.)

TABLE 2 EXISTING CONDITIONS (YEAR 2018) SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Signalized Intersection	Peak Hour	Existing Conditions	
	-		V/C Ratio	LOS
1.	Huntington Drive & Fifth Avenue	AM	0.667	В
		PM	0.843 0.693	D B
2.	Huntington Drive & I-210 EB Ramps	AM PM	0.693	A
	II " 1 D: 010401MDD	AM	0.615	В
3.	Huntington Drive & I-210 WB Ramps	PM	0.737	С
4.	Huntington Drive & Monterey Avenue	AM	0.827	D
4.	Huntington Drive & Monterey Avenue	PM	0.674	В
5.	Huntington Drive & Mayflower Avenue	AM	0.704	С
0.	Transington Brive & Mayhower Avenue	PM	0.769	С
6.	Huntington Drive & Magnolia Avenue	AM	0.710	С
0.	Transmigron Brive & Magnolia Avenue	PM	0.743	С
8.	Huntington Drive & Myrtle Avenue	AM	0.746	С
0.	- Individual Street & Myrdo Avendo	PM	0.747	С
10.	Huntington Drive & California Avenue	AM	0.820	D
		PM	0.720	С
11.	Huntington Drive & Mountain Avenue	AM	0.853	D
		PM	0.957	E
14.	Central Avenue & Myrtle Avenue	AM	0.763	С
	·	PM	0.864	D
15.	Central Avenue & California Avenue	AM	0.371	A
	Community (volume)	PM	0.338	A C
16.	Central Avenue & Mountain Avenue	AM	0.775	_
		PM	0.666 0.663	B B
19.	Evergreen Avenue & Myrtle Avenue	AM PM	0.824	D
		AM	0.345	A
20.	Evergreen Avenue & California Avenue	PM	0.495	A
		AM	0.493	В
21.	Evergreen Avenue & Mountain Avenue	PM	0.831	D
		AM	0.424	A
22.	Ponoma Avenue & Myrtle Avenue	PM	0.534	A
l		AM	0.655	В
23.	Duarte Road & Fifth Avenue	PM	0.629	В
	D 1 D 101: 5	AM	0.691	В
24.	Duarte Road & Mayflower Avenue	PM	0.650	В
05	December December 4 0 Marriage 1 Acc	AM	0.638	В
25.	Duarte Road & Magnolia Avenue	PM	0.560	Α
26	Duarto Bood 9 Deals Dead	AM	0.602	В
26.	Duarte Road & Peck Road	PM	0.563	Α
27.	Duarte Road & Myrtle Avenue	AM	0.761	С
۷1.		PM	0.866	D
28.	Duarte Road & California Avenue	AM	0.704	С
20.	Dualte Road & California Avenue	PM	0.718	С
29.	Duarte Road & Mountain Avenue	AM	0.619	В
		PM	0.687	В

Notes:

AM - Weekday AM Peak Hour, PM - Weekday PM Peak Hour

*Intersection is currently unsignalized. Future conditions analysis included only if signal warrants met.

Acceptable LOS

One Grade from Unacceptable LOS

Unacceptable LOS

Chapter 4 Future Traffic Conditions

Estimates of future traffic conditions were developed to evaluate the traffic levels likely to be on the local street system at the target Year 2040. This discussion details the assumptions used to develop the Future Conditions (Year 2040).

CEQA GUIDELINES REGARDING FUTURE TRAFFIC CONDITIONS

The forecast of Future conditions was prepared in accordance with procedures outlined in Section 15130 of *Guidelines for Implementation of the California Environmental Quality Act, Chapter 3, Title 14, California Code of Regulations* (California Natural Resources Agency, amended July 27, 2007) (*Guidelines*). Specifically, *Guidelines* provides two options for developing the cumulative traffic volume forecast:

- "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
- "(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes traffic growth from known projects¹ (Option "A" above), regional growth projections (Option "B" above), and projects that are based on the updated General Plan land use densities (General Plan Growth).

KNOWN PROJECTS TRAFFIC

Table 3 presents a summary of the known projects in the Study Area that are currently in the planning or construction stages of development. While not all of these projects may ultimately receive development approval by the City Council, they are a good indication of the type and level of development projects that the City is likely to experience in the near future. As shown in Table 3, there are currently 12 projects in some stage of the planning process. Together these 12 projects will generate approximately 15,031 daily trips, including 857 in the morning peak hour and 1,252 in the afternoon peak hour. These trips were distributed to the local roadway network based on the distribution patterns presented in the traffic studies for each project. If a traffic study has not been prepared yet, the distribution was based on the traffic study distribution of the closest similar project.

AMBIENT TRAFFIC GROWTH

Existing traffic is expected to increase as a result of regional growth and development both inside and outside the City. Based on the results of a regional model run prepared by SCAG, an ambient growth factor of 1.1% was applied to the morning peak hour volumes and an ambient growth factor of 1.9% was applied to the afternoon peak hour volumes over a 22-year period to reflect the effects of regional growth by Year 2040.

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¹ Traffic Impact Analysis for the 1625 Magnolia Avenue Project, Monrovia, Los Angeles County, California, LSA, February 2018; Traffic Impact Analysis for the Avalon Monrovia Project, Monrovia, Los Angeles County, California, LSA, January 2018; Traffic Impact Analysis for the Duarte Road Apartments Project, Monrovia, Los Angeles County, California, LSA, September 2017; Traffic Impact Analysis for the Monrovia Hotel Project, Monrovia, Los Angeles County, California, LSA, May 2018; Traffic Impact Analysis for the Monrovia Starbucks Project, Monrovia, Los Angeles County, California, LSA, February 2018.

GENERAL PLAN GROWTH TRAFFIC VOLUMES

In addition to the ambient traffic growth that may be caused by trips generated outside of the City limits, the land use growth inside the City will add to congestion in the future. This section discusses the trips that will be generated by the continued development of the General Plan Growth projects by the Year 2040.

The first step of the forecasting process is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis by applying the appropriate vehicle trip generation equations or rates to the amount of General Plan Growth development anticipated by Year 2040.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound traffic volumes to/from the General Plan Growth projects. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the City. Localized routes of travel through the City were developed based on existing traffic patterns and relative travel times on various corridors.

The third step of the forecasting process is traffic assignment. This involves applying the traffic generated by the General Plan Projects (the trip generation) to the intersections and street segments in the City according to the projected trip distribution patterns. These traffic volumes can then be added to existing or future background conditions to represent traffic volumes under those conditions once the 2035 General Plan Projects are complete.

With the forecasting process complete and traffic assignment developed, the impact of the General Plan Growth projects was isolated by comparing operational (i.e., LOS) conditions at the selected key intersections using expected future traffic volumes without and with forecast traffic from the General Plan Growth projects. The need for site-specific and/or cumulative local area traffic improvements was then evaluated and the significance of the General Plan Growth projects' impacts identified.

General Plan Projects Trip Generation

The most recent trip generation rates from *Trip Generation*, 10th *Edition* (Institute of Transportation Engineers, 2017) were utilized to develop the future trip generation estimates projects allowed by the General Plan anticipated to be in place by Year 2040.

Table 4 shows the trip generation anticipated from the projects allowed by the General Plan and Figure 6 depicts the location and limits of each zone used for General Plan Growth project traffic generation and distribution. These projects have the potential to add over 23,000 trips per day to the City street system, with approximately 1,200 of those trips occurring in the morning peak hour and approximately 2,200 trips occurring in the afternoon peak hour. It is important to note that it was not assumed that the entire City will be built to the ultimate General Plan allowances, but rather through consultation with City staff a reasonable level of development allowed by the General Plan was assumed to occur prior to 2040.

Project Trip Distribution

The geographic distribution of the trips summarized in Table 4 was developed based on the locations of residential and employment centers, characteristics of the City street system, the level of accessibility of routes to and from each area of the City, existing intersection traffic volumes, and the ingress/egress availability based on the proposed trip generation zone locations and street access. Based on these considerations, Project traffic both entering and exiting the various trip generation zones (i.e., areas of the City) was assigned to the surrounding street system based on the following general distribution pattern: 30% to/from the north, 30% to/from the east, 10% to/from the south, and 30% to/from the west. Much of the traffic generated by the General Plan Growth projects had both origins and destinations within the City, never leaving the City.

Project Trip Assignment

The trip distribution patterns described above were applied to the trip generation estimates summarized in Table 4 to develop the General Plan Growth projects traffic assignments.

The Future Conditions volumes represent the combination of known projects, ambient growth and the General Plan Growth projects. These future volumes for the 29 study intersections are shown in Figure 7.

FUTURE SIGNAL WARRANT ANALYSIS

With future intersections volumes established, a signal warrant analysis was conducted for the six unsignalized study intersections in order to determine if installation of a traffic signal will be warranted in the future at these locations.

Table 5 provides a summary of the signal warrant analysis. As shown in Table 5, all six unsignalized study intersections will warrant the installation of a traffic signal under future conditions. Therefore, for the purposes of this analysis, all six intersections were assumed to be signalized under Future Conditions.

Signal warrant analysis worksheets are provided in Appendix C.

FUTURE INTERSECTION LEVELS OF SERVICE ASSUMING NO FURTHER ROADWAY IMPROVEMENTS

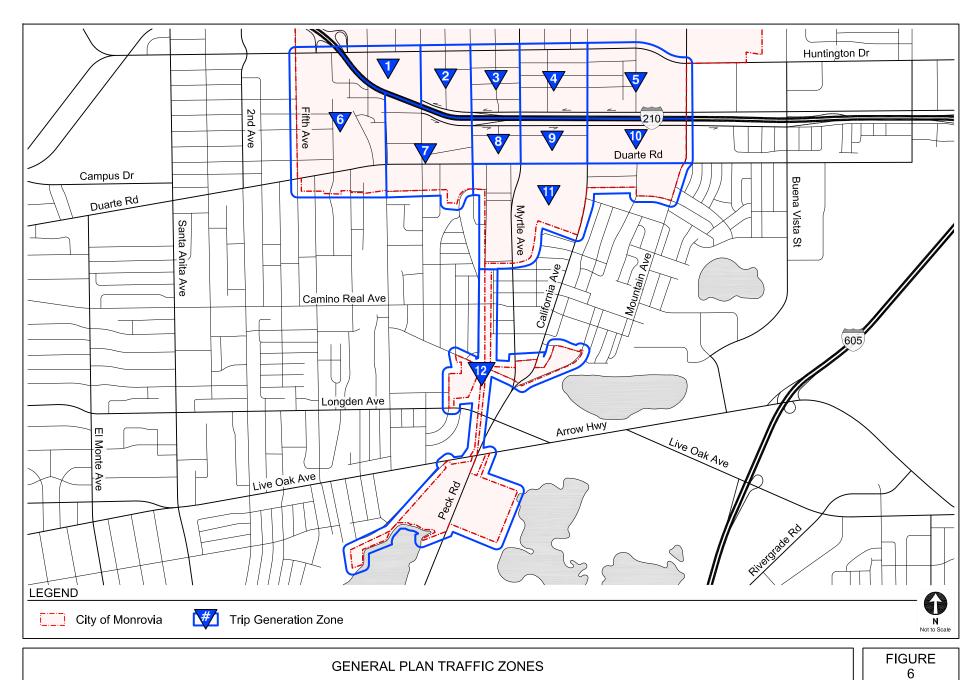
In order to provide a more conservative analysis, no future roadway improvements were assumed to be in place in the Future Conditions scenario.

Table 6 summarizes the analysis of the Future Conditions (Year 2040) traffic conditions. As shown, 17 of the 29 study intersections are projected to operate within the LOS D criteria established in the General Plan and the following 12 intersections will fail to meet their General Plan performance level:

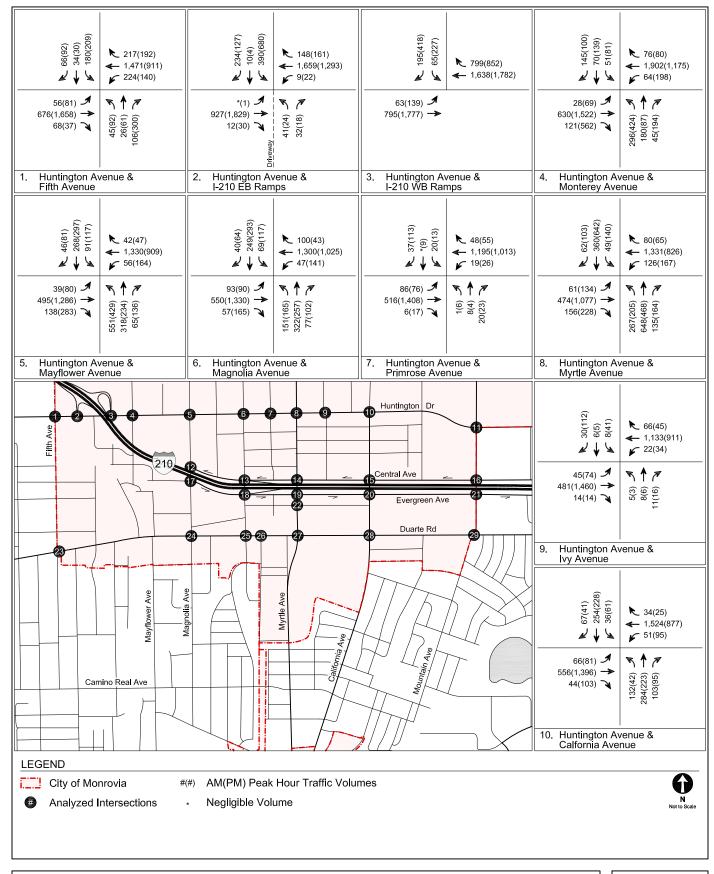
- 1. Huntington Drive & 5th Avenue LOS F in afternoon peak hour
- 3. Huntington Drive & I-210 Westbound Ramps LOS E in the afternoon peak hour
- 4. Huntington Drive & Monterey Avenue LOS F in the morning and afternoon peak hours
- 5. Huntington Drive & Mayflower Avenue LOS E in the afternoon peak hour

- 6. Huntington Drive & Magnolia Avenue LOS E in the afternoon peak hour
- 8. Huntington Drive & Myrtle Avenue LOS E in the afternoon peak hour
- 10. Huntington Drive & California Avenue LOS E in the morning peak hour
- 11. Huntington Drive & Mountain Avenue LOS E in the morning peak hour, LOS F in the afternoon peak hour
- 14. Central Avenue & Myrtle Avenue LOS E in the morning peak hour, LOS F in the afternoon peak hour
- 19. Evergreen Avenue & Myrtle Avenue LOS F in the afternoon peak hour
- 21. Evergreen Avenue & Mountain Avenue LOS E in the afternoon peak hour
- 27. Duarte Road & Myrtle Avenue LOS F in the afternoon peak hour



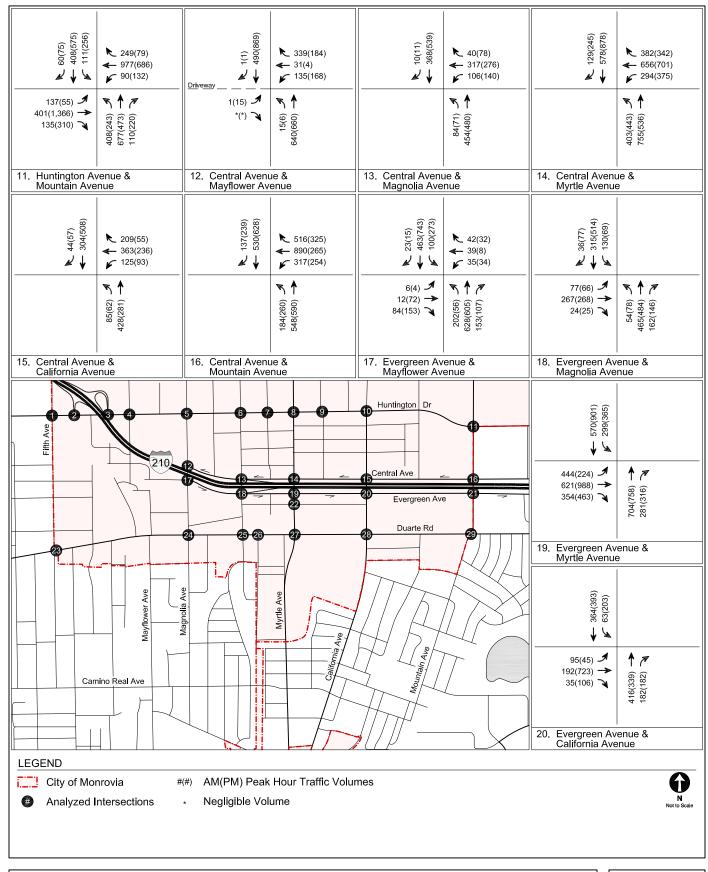






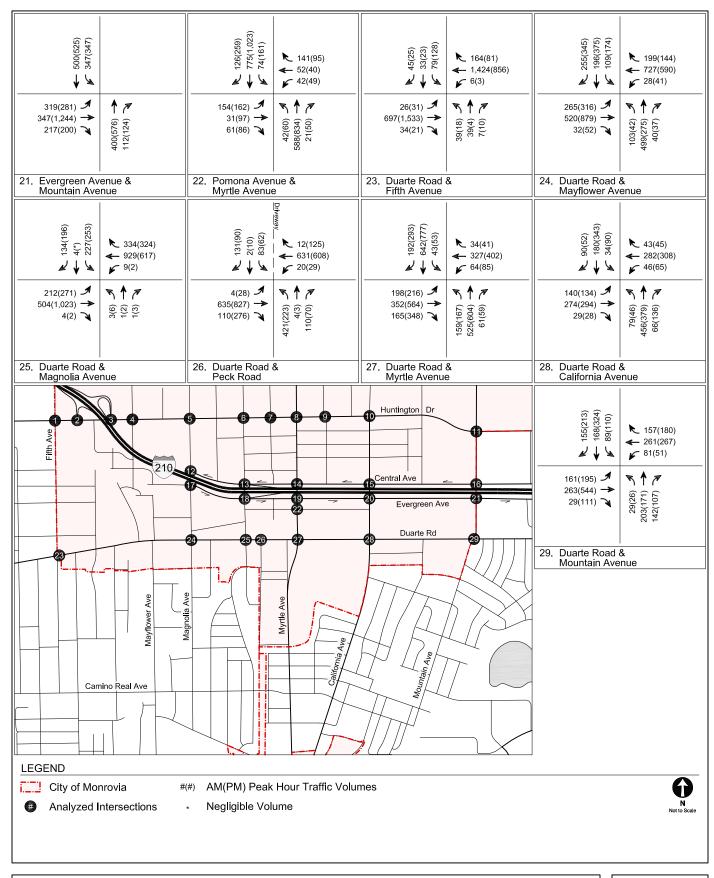
FUTURE CONDITIONS (YEAR 2040) PEAK HOUR TRAFFIC VOLUMES FIGURE 7





FUTURE CONDITIONS (YEAR 2040) PEAK HOUR TRAFFIC VOLUMES FIGURE 7 (CONT.)





FUTURE CONDITIONS (YEAR 2040) PEAK HOUR TRAFFIC VOLUMES FIGURE 7 (CONT.)

TABLE 3
KNOWN PROJECTS TRIP GENERATION

				Tr	ip Generati	ion		
Project Name	Project Description	Daily	Mor	ning Peak	Hour	After	noon Peak	Hour
		Daily	In	Out	Total	In	Out	Total
1625 Magnolia	472 apartment units	2,129	15	143	158	143	69	212
Avalon Monrovia	154 apartment units, 3,900 sf retail	721	-11	38	27	44	8	52
Myrtle/Lime Residential	140 apartment units	1,025	15	49	64	49	29	78
Townplace Suites Hotel	109 hotel rooms	891	34	24	58	34	31	65
Starbucks	2,200 sf coffee shop	179	39	41	80	-11	-14	-25
Duarte Road Apartments	296 apartment units	925	-10	80	70	7	73	80
MODA residential	261 apartment units	1,433	22	69	91	69	41	110
123 & 137 W Pomona Avenue	310 apartment units, 10,000 sf retail	1,390	11	62	73	71	40	111
1601 Myrtle Ave	103 apartment units	754	11	36	47	36	22	58
725 Huntington Dr Commercial Center	98,000 sf shopping center	3,700	57	35	92	179	194	373
1110-1212 Fifth Ave Residential	154 apartment units	845	13	40	53	40	24	64
Evergreen Partners Project	1,039	-5	49	44	55	19	74	
	City of Monrovia Grand Total	15,031	191	666	857	716	536	1,252

TABLE 4
GENERAL PLAN TRIP GENERATION BY ZONE

					Tri	p Generation	on		
Zone	Land Use	Size	Daily	Mor	ning Peak	Hour	After	noon Peak	Hour
			Daily	In	Out	Total	In	Out	Total
1	Retail	150 ksf	5,663	87	54	141	275	297	572
		Sub-Total	5,663	87	54	141	275	297	572
2	Retail	25 ksf	944	15	9	24	46	49	95
	Apartments	200 du	1,464	21	71	92	71	41	112
		Sub-Total	2,408	36	80	116	117	90	207
3	Retail	10 ksf	378	6	3	9	18	20	38
	Office	25 ksf	244	25	4	29	5	24	29
		Sub-Total	622	31	7	38	23	44	67
4	Manufacturing	50 ksf	197	24	7	31	11	23	34
		Sub-Total	197	24	7	31	11	23	34
5	Manufacturing	100 ksf	393	48	14	62	21	46	67
	Office	100 ksf	974	100	16	116	18	97	115
		Sub-Total	1,367	148	30	178	39	143	182
6	Retail	50 ksf	1,888	29	18	47	92	99	191
	Apartments	150 du	1,098	16	53	69	53	31	84
	Office	25 ksf	244	25	4	29	5	24	29
		Sub-Total	3,230	70	75	145	150	154	304
7	Apartments	400 du	2,928	42	142	184	141	83	224
	Retail	20 ksf	755	12	7	19	36	40	76
		Sub-Total	3,683	54	149	203	177	123	300
8	None	0	0	0	0	0	0	0	0
9	Apartments	500 du	3,660	53	177	230	176	104	280
		Sub-Total	3,660	53	177	230	176	104	280
10	None	0	0	0	0	0	0	0	0
11	Retail	50 ksf	1,888	29	18	47	92	99	191
	Manufacturing	50 ksf	197	24	7	31	11	23	34
		Sub-Total	2,085	53	25	78	103	122	225
12	Manufacturing	50 ksf	197	24	7	31	11	23	34
		Sub-Total	197	24	7	31	11	23	34
	City of M	lonrovia Total	23,112	580	611	1,191	1,082	1,123	2,205

TABLE 5
TRAFFIC SIGNAL WARRANT SUMMARY

No.	Intersection	Tested Peak		W		Warrants Signal		
140.	mersection	Hour [a]	1A	1B	1C	2	3	Installation
7.	Huntington Drive & Primrose Avenue	PM Peak	No	Yes	No	Yes	Yes	Yes
8.	Huntington Drive & Ivy Avenue	PM Peak	No	Yes	No	Yes	Yes	Yes
12.	Central Avenue & Mayflower Avenue	AM Peak	Yes	No	No	Yes	Yes	Yes
13.	Central Avenue & Magnolia Avenue	PM Peak	Yes	No	No	Yes	Yes	Yes
17.	Evergreen Avenue & Mayflower Avenue	PM Peak	No	Yes	Yes	Yes	Yes	Yes
18.	Evergreen Avenue & Magnolia Avenue	AM Peak	Yes	No	Yes	Yes	Yes	Yes

Notes:

[a] The higher-volume peak hour at each intersection was tested.

TABLE 6 FUTURE CONDITIONS (YEAR 2040) BEFORE MITIGATION SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Signalized Intersection	Peak Hour	Existing C	onditions	Future Cor	nditions be	fore Mitigation
	• • • • • • • • • • • • • • • • • • • •		V/C Ratio	LOS	V/C Ratio	LOS	Change in V/C Ratio
1.	Huntington Drive & Fifth Avenue	AM	0.667	В	0.791	C F	0.124
		PM AM	0.843 0.693	D B	1.075 0.790	С	0.232 0.097
2.	Huntington Drive & I-210 EB Ramps	PM	0.093	A	0.734	C	0.097
		AM	0.615	В	0.732	C	0.117
3.	Huntington Drive & I-210 WB Ramps	PM	0.737	C	0.946	E	0.209
		AM	0.827	D	1.031	F	0.204
4.	Huntington Drive & Monterey Avenue	PM	0.674	В	1.114	F	0.440
5.	Huntington Drive & Mayflower Avenue	AM	0.704	С	0.849	D	0.145
J.	Trunkington brive & Mayriower Avenue	PM	0.769	С	0.997	Е	0.228
6.	Huntington Drive & Magnolia Avenue	AM	0.710	С	0.888	D	0.178
<u> </u>		PM	0.743	С	0.981	Е	0.238
7.*	Huntington Drive & Primrose Avenue	AM	-	-	0.579	A	-
		PM	0.746	C	0.649 0.878	B D	0.132
8.	Huntington Drive & Myrtle Avenue	AM PM	0.740	C	0.878	E	0.132
		AM	0.747	-	0.534	A	0.155
9.*	Huntington Drive & Ivy Avenue	PM	_	_	0.683	В	_
		AM	0.820	D	0.912	E	0.092
10.	Huntington Drive & California Avenue	PM	0.720	С	0.821	D	0.101
		AM	0.853	D	0.970	Е	0.117
11.	Huntington Drive & Mountain Avenue	PM	0.957	Е	1.084	F	0.127
12.*	Central Avanua & Mayflower Avanua	AM	-	-	0.532	Α	-
12.	Central Avenue & Mayflower Avenue	PM	-	-	0.503	Α	-
13.*	Central Avenue & Magnolia Avenue	AM	-	-	0.581	Α	-
10.	Gential Avenue & Magnolia Avenue	PM	-	-	0.642	В	-
14.	Central Avenue & Myrtle Avenue	AM	0.763	С	0.983	Е	0.220
		PM	0.864	D	1.166	F	0.302
15.	Central Avenue & California Avenue	AM	0.371	A	0.407	A	0.036
		PM	0.338 0.775	A C	0.396 0.862	A D	0.058 0.087
16.	Central Avenue & Mountain Avenue	AM PM	0.775	В	0.862	С	0.067
-		AM	-	-	0.556	A	-
17.*	Evergreen Avenue & Mayflower Avenue	PM	_	_	0.675	В	_
40.0		AM	-	-	0.837	D	-
18.*	Evergreen Avenue & Magnolia Avenue	PM	-	-	0.810	D	-
19.	Evergreen Avenue & Murtle Avenue	AM	0.663	В	0.900	D	0.237
19.	Evergreen Avenue & Myrtle Avenue	PM	0.824	D	1.117	F	0.293
20.	Evergreen Avenue & California Avenue	AM	0.345	Α	0.393	Α	0.048
0.	o.g.coco.dodamornia/trollado	PM	0.495	A	0.572	A	0.077
21.	Evergreen Avenue & Mountain Avenue	AM	0.604	В	0.676	В	0.072
$\vdash \vdash$		PM	0.831	D	0.925	E	0.094
22.	Ponoma Avenue & Myrtle Avenue	AM DM	0.424 0.534	Α Δ	0.651 0.786	B C	0.227 0.252
 		PM AM	0.655	A B	0.786	С	0.252
23.	Duarte Road & Fifth Avenue	PM	0.629	В	0.734	C	0.079
1		AM	0.691	В	0.703	C	0.100
24.	Duarte Road & Mayflower Avenue	PM	0.650	В	0.787	C	0.137
25	Duanta Dand 9 Marine III - Account	AM	0.638	В	0.775	С	0.137
25.	Duarte Road & Magnolia Avenue	PM	0.560	Α	0.728	С	0.168
26	Duarte Road & Book Bood	AM	0.602	В	0.744	С	0.142
26.	Duarte Road & Peck Road	PM	0.563	Α	0.703	С	0.140
27.	Duarte Road & Myrtle Avenue	AM	0.761	С	0.897	D	0.136
۷1.	Dualto Road & Prigrate Avenue	PM	0.866	D	1.076	F	0.210
28.	Duarte Road & California Avenue	AM	0.704	С	0.775	С	0.071
		PM	0.718	С	0.822	D	0.104
29.	Duarte Road & Mountain Avenue	AM	0.619	В	0.666	В	0.047
		PM	0.687	В	0.756	С	0.069

AM - Weekday AM Peak Hour, PM - Weekday PM Peak Hour

Acceptable LOS
One Grade from Unacceptable LOS

^{*}Intersection is currently unsignalized. Future conditions analysis included only if signal warrants met.

Chapter 5

Future Transportation Changes

Since there are 12 intersections that do not meet the General Plan performance criteria under Future Conditions and other intersections that are approaching LOS E, additional transportation system improvements will have to be made to support the projected land use growth levels. This chapter discusses the improvement program needed to realize the General Plan 2040 growth levels.

PROPOSED TRANSPORTATION CHANGES

The transportation system improvements needed to accommodate the Future Conditions will include several strategies to meet the General Plan performance goals.

Intersection Physical Improvements

In general, a cost-effective solution to improve the performance of an intersection often involves implementing physical improvements such as adding turn or through lanes or changing the operation of existing lanes. Six of the 12 study intersections operating at an unacceptable LOS in the future have been identified as candidates for physical improvements, the remaining six intersections each have limitations on the amount of physical improvements that can be made. Improvements to those intersections will be discussed later in this chapter.

The physical improvements below were tested to determine if the amount of congestion reduction would result in an acceptable LOS per the General Plan.

1. <u>Huntington Drive & 5th Avenue</u> – Add a third eastbound through lane that starts approximately 150 feet west of the intersection. This lane would then continue until it meets the existing right-turn lane at the I-210 eastbound on-ramp. This improvement

- was also included in the Arcadia TIF program as the intersection is shared by the two cities. (See Figure 8.)
- 4. <u>Huntington Drive & Monterey Avenue</u> Convert the westbound right-turn lane into a shared through/right lane that continues until it meets the existing right-turn lane at the I-210 westbound on-ramp. Add a third eastbound through lane that starts approximately 150 feet west of the intersection that continues until it meets the existing right-turn lane at the intersection of Huntington Drive & Highway Esplanade. (See Figure 9.)
- 11. <u>Huntington Drive & Mountain Avenue</u> Add a third westbound through lane that starts approximately 150 feet east of the intersection and continues until it becomes a trap right-turn lane at the intersection of Huntington Drive & Shamrock Avenue. Add a third eastbound through lane that starts approximately 150 feet west of the intersection that continue until it meets the existing right-turn lane at the intersection of Huntington Drive & the Mountain Vista Plaza driveway. (See Figure 10.)
- 14. <u>Central Avenue & Myrtle Avenue</u> Convert the westbound left-turn lane into a shared through/left-turn lane. In addition, a southbound right-turn lane will be added to this intersection as a mitigation measure for a project currently under construction. (See Figure 11.)
- 21. <u>Evergreen Avenue & Mountain Avenue</u> Add a northbound right-turn lane that starts approximately 100 feet south of the intersection. (See Figure 12.)
- 27. <u>Duarte Road & Myrtle Avenue</u> Add an eastbound right-turn lane that starts approximately 150 feet west of the intersection and a westbound right-turn lane that starts approximately 150 feet east of the intersection. (See Figure 13.)

Table 7 provides a summary of the LOS of the study intersections with all of the improvements in place. As shown, the improvement package described above would result in an acceptable LOS (LOS D or better) at all of the study intersections in Year 2040.

Traffic Signal System

A key to the successful operation of the street system in the City is the performance of the traffic signal system. The six remaining intersections projected to operate at an unacceptable LOS under Future Conditions are not viable candidates for physical improvements, mainly due to a lack of right-of-way that precludes any street widening. For these intersections, improvements to the signal equipment and installation of a coordinated signal system will be required to achieve an acceptable LOS.

System Improvements. The City does not currently have signal system coordination along any of its key corridors; therefore, a traffic signal system coordination plan for the arterials and congested streets in the Study Area is needed. Every traffic signal along arterials of Huntington Drive, Myrtle Avenue, and Mountain Avenue in the Study Area should be interconnected to a central control system and a traffic control center should be established to coordinate, operate, and maintain the traffic signals along the arterials in the Study Area. In total, 18 of the 29 study intersections will need to be included in the coordinated system in order for the system to have its full beneficial effect. Studies have shown that coordinated signal systems can improve capacity at an intersection by as much as 20%. In order to be conservative, a 10% increase in capacity was assumed at intersections included in the coordinated system.

In addition to the cost to install the coordination system, many of the signals in the Study Area will need to be upgraded to either comply with current standards or install equipment that can accommodate the coordinated signal system. Those costs are included in the TIF because they are required to install a signal coordination system.

With this coordinated signal system in place, all 29 study intersections will operate at an acceptable LOS D or better under Future Conditions.

<u>New Signals</u>. As discussed in the previous chapter, there are a number of locations within the City that meet signal warrants under Future Conditions. The TIF should include monies for the signalization of the following six locations:

- 7. Huntington Drive & Primrose Avenue
- 9. Huntington Drive & Ivy Avenue
- 12. Central Avenue & Mayflower Avenue
- 13. Central Avenue & Magnolia Avenue
- 17. Evergreen Avenue & Mayflower Avenue
- 18. Evergreen Avenue & Magnolia Avenue

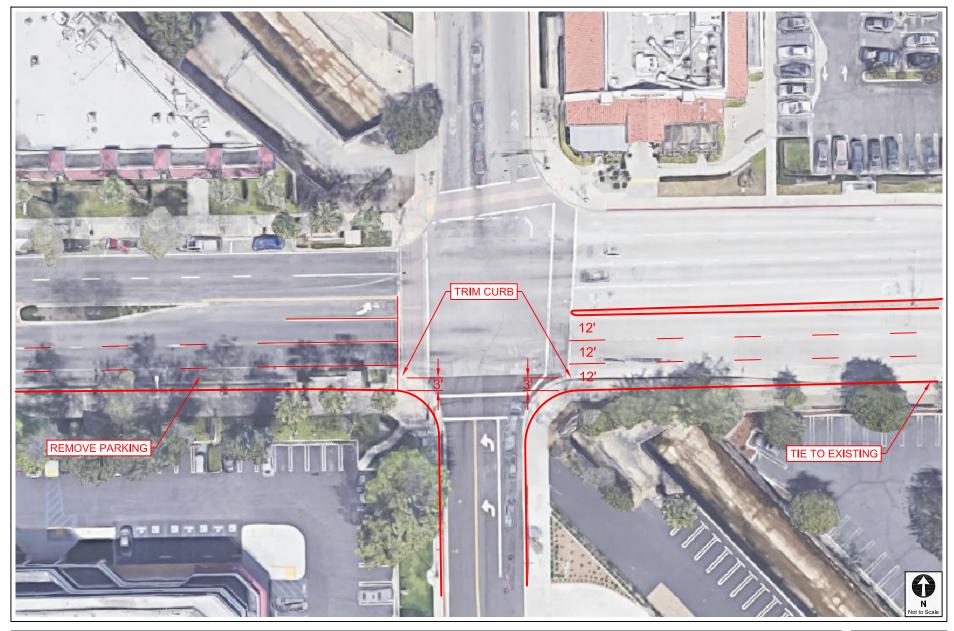
These locations would likely be signalized over time as traffic conditions justified the signalization.

SUMMARY

To support the level of development anticipated in the future, additional transportation system improvements will be needed. Those improvements can be categorized as intersection improvements or traffic signal system improvements. If all of the above improvements are made, the transportation system in the City will meet the General Plan goal of LOS D operation in Year 2040.

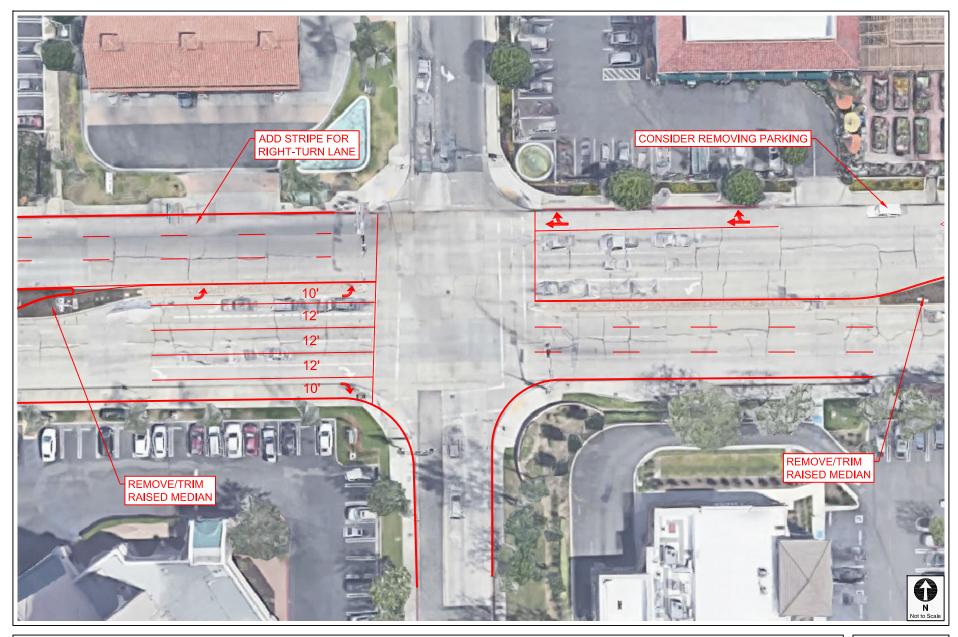
To the extent that not all General Plan Growth projects are constructed by Year 2040, not all of the improvements would be needed and not all of the fees needed to build the improvements would have been collected.





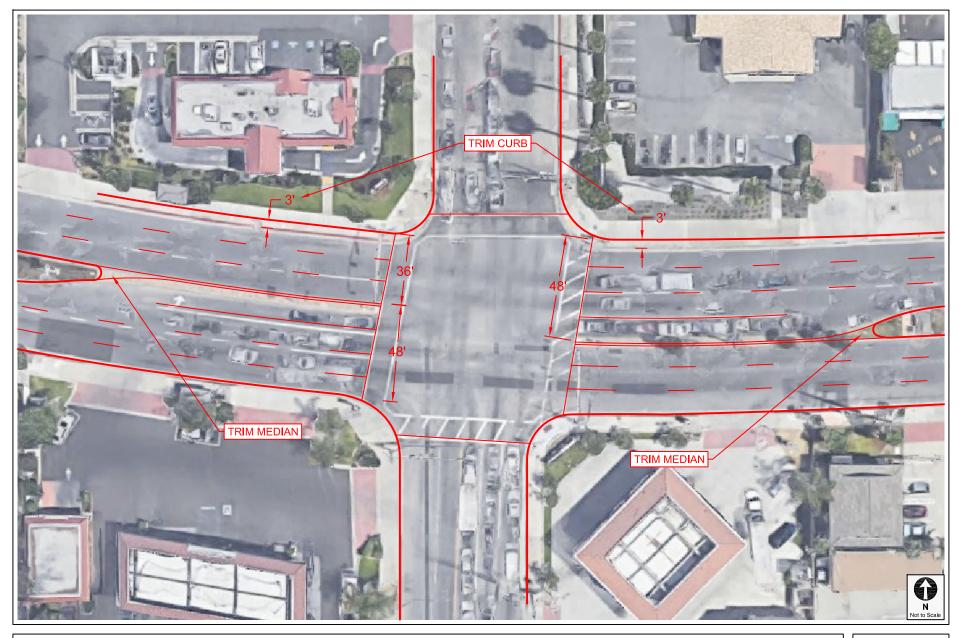
5TH AVENUE & HUNTINGTON DRIVE PROPOSED MITIGATION





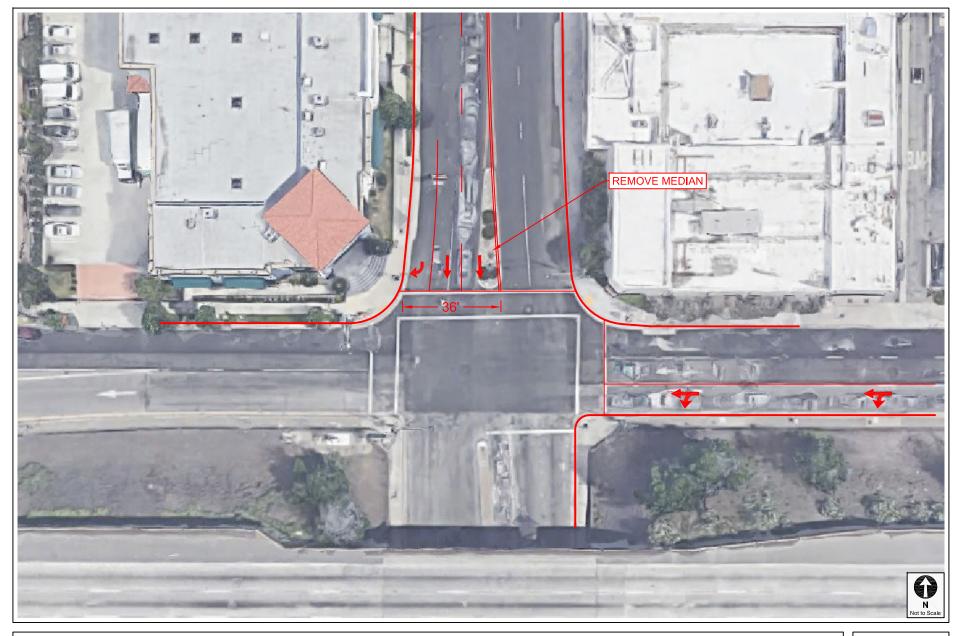
MONTEREY AVENUE & HUNTINGTON DRIVE PROPOSED MITIGATION





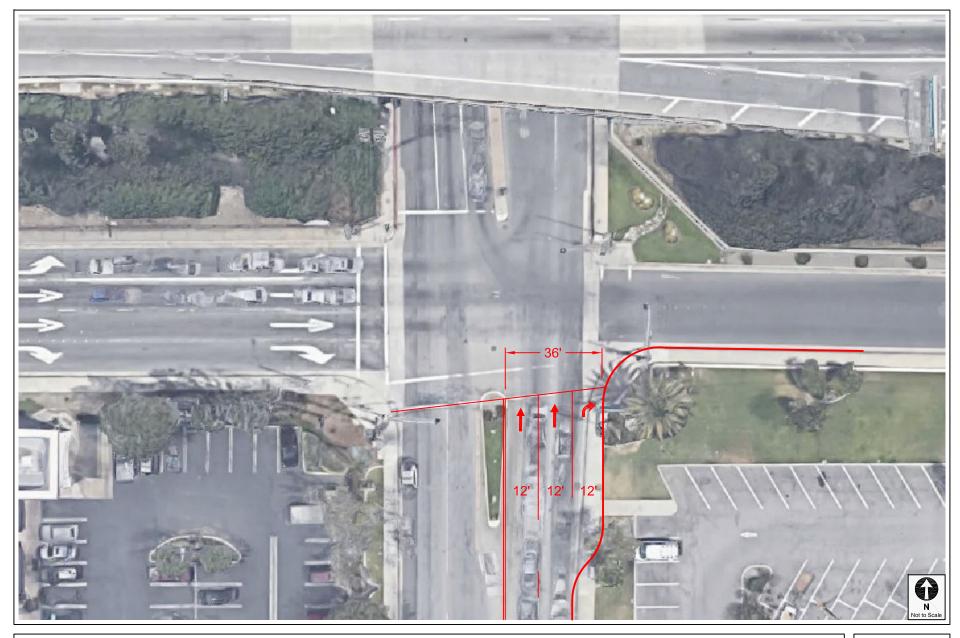
MOUNTAIN AVENUE & HUNTINGTON DRIVE PROPOSED MITIGATION





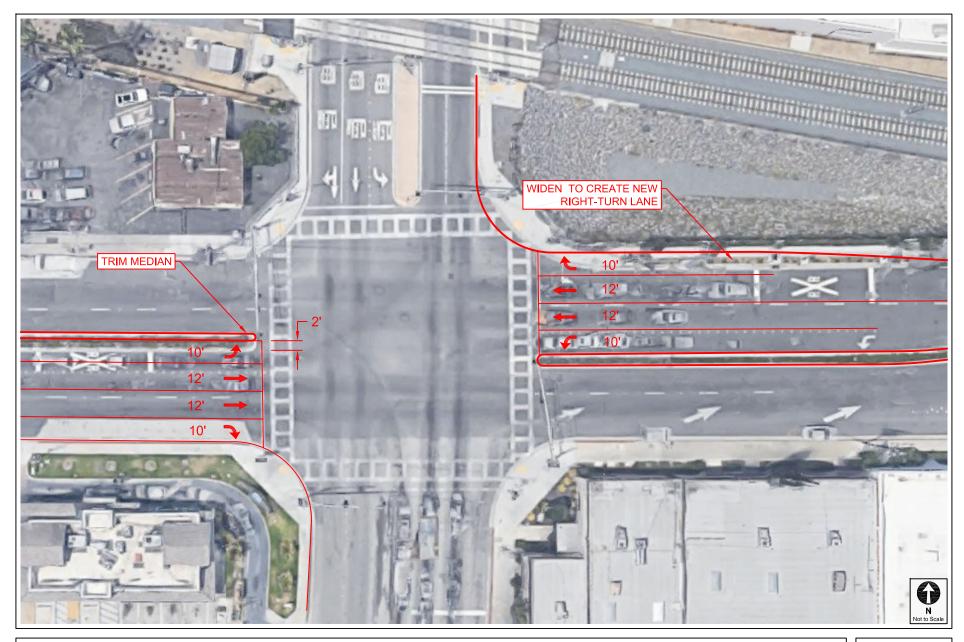
CENTRAL AVENUE & MYRTLE AVENUE PROPOSED MITIGATION





MOUNTAIN AVENUE & EVERGREEN AVENUE PROPOSED MITIGATION





DUARTE ROAD & MYRTLE AVENUE PROPOSED MITIGATION

TABLE 7 FUTURE WITH IMPROVEMENTS CONDITIONS (YEAR 2040) WITH MITIGATION SIGNALIZED INTERSECTION PEAK HOUR LEVELS OF SERVICE

No.	Signalized Intersection	Peak Hour	Existing C	onditions	Future Con	nditions be	fore Mitigation	Future Conditions with Mitigation			
	-		V/C Ratio	LOS	V/C Ratio	LOS	Change in V/C Ratio	V/C Ratio	LOS	Change in V/C Ratio	
1.	Huntington Drive & Fifth Avenue	AM	0.667	В	0.791	С	0.124	0.691	В	0.024	
	- Tanangen 2.170 a man trongo	PM	0.843	D	1.075	F	0.232	0.798	С	-0.045	
2.	Huntington Drive & I-210 EB Ramps	AM	0.693	В	0.790	C	0.097	0.690	B B	-0.003 0.080	
		PM AM	0.554 0.615	A B	0.734 0.732	С	0.180 0.117	0.634 0.632	В	0.080	
3.	Huntington Drive & I-210 WB Ramps	PM	0.737	С	0.732	E	0.209	0.846	D	0.109	
		AM	0.827	D	1.031	F	0.204	0.749	С	-0.078	
4.	Huntington Drive & Monterey Avenue	PM	0.674	В	1.114	F	0.440	0.889	D	0.215	
5.	Huntington Drive & Mayflower Avenue	AM	0.704	С	0.849	D	0.145	0.749	С	0.045	
0.	Transmigron Brive & Mayhower Avenue	PM	0.769	С	0.997	Е	0.228	0.897	D	0.128	
6.	Huntington Drive & Magnolia Avenue	AM	0.710	С	0.888	D	0.178	0.788	С	0.078	
		PM	0.743	С	0.981	E	0.238	0.881	D	0.138	
7.*	Huntington Drive & Primrose Avenue	AM PM	-	-	0.579 0.649	A B	-	0.479 0.549	A A		
		AM	0.746	С	0.878	D	0.132	0.778	C	0.032	
8.	Huntington Drive & Myrtle Avenue	PM	0.747	C	0.902	E	0.155	0.802	D	0.055	
0 +	Libertin et al Deira O has Assault	AM	-	-	0.534	Α	-	0.434	Α	-	
9.*	Huntington Drive & Ivy Avenue	PM	-	-	0.683	В	-	0.583	Α	-	
10.	Huntington Drive & California Avenue	AM	0.820	D	0.912	Е	0.092	0.812	D	-0.008	
10.	Transmigrant Environ & Gamornia / Worldo	PM	0.720	С	0.821	D	0.101	0.721	С	0.001	
11.	Huntington Drive & Mountain Avenue	AM	0.853	D	0.970	E	0.117	0.742	С	-0.111	
		PM	0.957	Е	1.084 0.532	F	0.127	0.809	D A	-0.148	
12.*	Central Avenue & Mayflower Avenue	AM PM	_	-	0.532	A A	-	0.532 0.503	A	-	
		AM	-	-	0.581	A	-	0.581	A	-	
13.*	Central Avenue & Magnolia Avenue	PM	_	-	0.642	В	_	0.642	В	_	
44	Occident Assesses O.M. anti- Assesses	AM	0.763	С	0.983	Е	0.220	0.730	С	-0.033	
14.	Central Avenue & Myrtle Avenue	PM	0.864	D	1.166	F	0.302	0.887	D	0.023	
15.	Central Avenue & California Avenue	AM	0.371	Α	0.407	Α	0.036	0.407	Α	0.036	
10.	Contrat / Worldo & Camornia / Worldo	PM	0.338	Α	0.396	Α	0.058	0.396	A	0.058	
16.	Central Avenue & Mountain Avenue	AM	0.775	С	0.862	D	0.087	0.862	D	0.087	
		PM AM	0.666	B -	0.737 0.556	C A	0.071	0.737 0.556	C A	0.071	
17.*	Evergreen Avenue & Mayflower Avenue	PM	_	-	0.675	В	_	0.675	В]	
		AM	-	-	0.837	D	_	0.837	D	-	
18.*	Evergreen Avenue & Magnolia Avenue	PM	-	-	0.810	D	-	0.810	D	-	
19.	Evergreen Avenue & Myrtle Avenue	AM	0.663	В	0.900	D	0.237	0.703	С	0.040	
19.	Evergreen Avenue & Wyrtie Avenue	PM	0.824	D	1.117	F	0.293	0.814	D	-0.010	
20.	Evergreen Avenue & California Avenue	AM	0.345	A	0.393	A	0.048	0.393	A	0.048	
		PM	0.495	A	0.572	A	0.077	0.572	A	0.077	
21.	Evergreen Avenue & Mountain Avenue	AM PM	0.604 0.831	B D	0.676 0.925	B E	0.072 0.094	0.641 0.886	B D	0.037 0.055	
		AM	0.424	A	0.923	В	0.094	0.651	В	0.033	
22.	Ponoma Avenue & Myrtle Avenue	PM	0.534	A	0.786	С	0.252	0.786	С	0.252	
20	Duranta Danad C Fifth Account	AM	0.655	В	0.734	С	0.079	0.734	С	0.079	
23.	Duarte Road & Fifth Avenue	PM	0.629	В	0.709	С	0.080	0.709	С	0.080	
24.	Duarte Road & Mayflower Avenue	AM	0.691	В	0.791	С	0.100	0.791	С	0.100	
- ₹.	Dualto House & Mayllower Avenue	PM	0.650	В	0.787	С	0.137	0.787	С	0.137	
25.	Duarte Road & Magnolia Avenue	AM	0.638	В	0.775	С	0.137	0.775	С	0.137	
		PM	0.560	A	0.728	С	0.168	0.728	С	0.168	
26.	Duarte Road & Peck Road	AM PM	0.602 0.563	B A	0.744 0.703	C	0.142 0.140	0.744 0.703	C C	0.142 0.140	
\vdash		AM	0.563	C	0.703	D	0.140	0.703	C	0.140	
27.	Duarte Road & Myrtle Avenue	PM	0.866	D	1.076	F	0.130	0.899	D	0.023	
	Duranta Dan 1000 Million	AM	0.704	С	0.775	С	0.071	0.775	С	0.071	
28.	Duarte Road & California Avenue	PM	0.718	С	0.822	D	0.104	0.822	D	0.104	
29.	Duarte Road & Mountain Avenue	AM	0.619	В	0.666	В	0.047	0.666	В	0.047	
29.	Duarte Noau & Mountain Avenue	PM	0.687	В	0.756	С	0.069	0.756	С	0.069	

AM - Weekday AM Peak Hour, PM - Weekday PM Peak Hour

Acceptable LOS
One Grade from Unacceptable LOS
Unacceptable LOS

^{*}Intersection is currently unsignalized. Future conditions analysis included only if signal warrants met.

Chapter 6

Transportation System Improvement Costs

This chapter describes the derivation of the TIF that would be applied to all new development in the Study Area. The concept of a TIF is that all the transportation improvements needed to support new development would be identified and cost estimates prepared. The new developments would pay their fair shares of those needed transportation improvements. If all anticipated development did not ultimately occur, the corresponding monies would not all be collected.

However, not all improvements would be necessary if the full level of development does not occur.

IMPROVEMENT PROGRAM COSTS

Table 8 summarizes the lane additions/changes at each study intersection that require improvements to maintain acceptable LOS as well as the cost of the transportation improvement program discussed in the previous chapter. Divided into the general improvement categories discussed in Chapter 5, the transportation improvement program would cost \$7.08 million when contingencies and soft costs are taken into consideration:

TOTAL	\$7.08 M
Design and Permits	\$0.76 M
Contingency	\$0.32 M
Signal Installation	\$1.60 M
Signal Coordination	\$1.35 M
Signal Equipment Upgrades	\$1.68 M
Intersection	\$1.37 M

These cost estimates are based on December 2018 cost estimates when the California Construction Cost Index (CCCI) was 6,684. As of April 2019, the CCCI was 6,841, a 2.35% increase from December 2018. This would result in a total cost estimate of approximately \$7.24 million.

If the City adopts a TIF, the improvement cost estimates shown in Table 8 should be updated annually, on July 1 when the City's fiscal year begins, based on the change in the CCCI from the December 2018 CCCI.

COST ALLOCATION

There are several methods to determine the fair allocation of costs over the new development projects. The most common methodologies are based on net new trip generation of the new projects – either daily traffic volumes or one or both peak hour trips. For this study, the recommended methodology is to utilize the afternoon peak hour volumes generated by each development.

TRIP GENERATION

Trip Generation, 10th Edition was used to determine the trip generation of each new project. Each project will be allowed to claim an appropriate level of transit credits based on its location. Based on the afternoon peak hour trips shown in Tables 3 and 4, the total afternoon peak hour generation based on the General Plan for the Study Area is projected to be 3,457 trips.

TRAFFIC IMPACT FEE CALCULATION

The 3,457 anticipated afternoon peak hour trips to be generated by proposed development (Tables 3 and 4) applied to the \$7.24 million transportation improvement program cost results in an TIF for new City developments of \$2,095 per net new afternoon peak hour trip.

APPLICATION OF TRAFFIC IMPACT FEE

Per the City, the application of the TIF will be consistent with the rules and methodologies prescribed by State legislation. Each new project will estimate the number of net new afternoon peak hour trips based on the latest edition of *Trip Generation*, and the TIF may be adjusted annually based on any changes in the construction cost index.

Should new development implement any of the improvements listed in the current TIF improvements (Table 8) as part of its mitigation package, that project will receive credit against its TIF for the dollar amount listed in the calculation of the fee.

TABLE 8 REQUIRED TIF IMPROVEMENTS AND COST ESTIMATES

No.	Intersection	Signal Coordination	Signal Equipment Upgrade	New Signal Installation	Physical Modification	Comments
1.	Huntington Drive & Fifth Avenue	\$75,000	\$75,000		\$244,815	Add third EB through lane
2.	Huntington Drive & I-210 EB Ramps	\$75,000				
3.	Huntington Drive & I-210 WB Ramps	\$75,000				
4.	Huntington Drive & Monterey Avenue	\$75,000	\$75,000		\$266,157	Convert WB right to shared through/right lane Add EB through lane
5.	Huntington Drive & Mayflower Avenue	\$75,000				•
6.	Huntington Drive & Magnolia Avenue	\$75,000				
7.*	Huntington Drive & Primrose Avenue	\$75,000		\$300,000		
8.	Huntington Drive & Myrtle Avenue	\$75,000				
9.*	Huntington Drive & Ivy Avenue	\$75,000		\$300,000		
10.	Huntington Drive & California Avenue	\$75,000				
11.	Huntington Drive & Mountain Avenue	\$75,000	\$150,000		\$273,141	Add EB & WB through lane
12.*	Central Avenue & Mayflower Avenue			\$250,000		
13.*	Central Avenue & Magnolia Avenue			\$250,000		
14.	Central Avenue & Myrtle Avenue	\$75,000	\$250,000		\$87,886	SB right turn from previous study Convert WB left to left/through
15.	Central Avenue & California Avenue		\$250,000			John M. J. St. Co. Coldan Gag.
16.	Central Avenue & Mountain Avenue	\$75,000	\$125,000			
17.*	Evergreen Avenue & Mayflower Avenue			\$250,000		
18.*	Evergreen Avenue & Magnolia Avenue			\$250,000		
19.	Evergreen Avenue & Myrtle Avenue	\$75,000	\$250,000			
20.	Evergreen Avenue & California Avenue		\$250,000			
21.	Evergreen Avenue & Mountain Avenue	\$75,000	\$125,000		\$206,950	Add NB right turn lane
22.	Ponoma Avenue & Myrtle Avenue	\$75,000				
23.	Duarte Road & Fifth Avenue					
24.	Duarte Road & Mayflower Avenue					
25.	Duarte Road & Magnolia Avenue					
26.	Duarte Road & Peck Road					
27.	Duarte Road & Myrtle Avenue	\$75,000	\$125,000		\$295,944	Add EB & WB right turns
28.	Duarte Road & California Avenue					
29.	Duarte Road & Mountain Avenue	\$75,000				
PI	ans, Specifications, and Estimate	Ph	ysical Improvem	ents Soft Costs	\$206,234	
Co	onstruction Management, Surveying, Testing, and In				\$206,234	
	aging / Traffic Control / Traffic Control Plans (6 @ \$.	20,000)			\$120,000 \$30,000	
	ublic Notification (6 @ \$5,000) publication (6 @ \$20,000)				\$30,000 \$120,000	
Pe	ed. and Vehicle Access (6 @ \$7,500)				\$45,000	
SI	NPPP Implementation (6 @ 5,000) 15% Contigency				\$30,000 \$319,854	
	1370 Configency				φυ 19,004	
	Grand Total	\$1,350,000	\$1,675,000	\$1,600,000	\$2,452,214	\$7,077,214

Chapter 7

Summary and Conclusions

This report presents the TIF Study for the area of the City south of Huntington Drive. The following summarizes the results of the analysis:

- The methodology and base assumptions used in the analysis are consistent with the requirements of State legislation and with those methodologies used in the formulation of the TIF process in various cities across California.
- The TIF is a trip-based transportation fee imposed on new and redeveloping projects within the City. The fee is based on the number of projected new trips assumed to be developed within the City over an approximate 20-year period, as well as the cost of the improvements required to support the increase in traffic.
- The Study Area is comprised of the area of the City south of Huntington Drive and is focused on the 29 key intersections where future congestion may reach an undesirable LOS.
- The General Plan adopted LOS D as the minimum acceptable operational level during the peak hours.
- Peak hour traffic counts were conducted for the 29 study intersections within the past two years.
- Under Existing Conditions, 22 of the 23 signalized study intersections operate at LOS D or better. Only the intersection of Huntington Drive & Mountain Avenue does not currently meet its LOS performance standard according to the General Plan criteria.
- Estimates of future traffic conditions were developed to evaluate the traffic levels likely to be on the local street system at the target Year 2040. Future traffic levels were projected for:
 - Regional growth
 - Known or projects already underway
 - o Projects allowed by the General Plan anticipated to be in place by Year 2040
- The future development projects anticipated in the City by Year 2040 will likely generate a total of 2,048 morning peak hour trips and 3,457 afternoon peak hour trips.
- The analysis of the Future (Year 2040) traffic conditions show that 17 of the 29 study intersections are projected to operate within the LOS D criteria established in the General Plan and 12 intersections will fail to meet their General Plan performance level:

- 2. Huntington Drive & 5th Avenue LOS F in afternoon peak hour
- 7. Huntington Drive & I-210 Westbound Ramps LOS E in the afternoon peak hour
- 8. Huntington Drive & Monterey Avenue LOS F in the morning and afternoon peak hours
- 9. Huntington Drive & Mayflower Avenue LOS E in the afternoon peak hour
- 10. Huntington Drive & Magnolia Avenue LOS E in the afternoon peak hour
- 9. Huntington Drive & Myrtle Avenue LOS E in the afternoon peak hour
- 12. Huntington Drive & California Avenue LOS E in the morning peak hour
- 13. Huntington Drive & Mountain Avenue LOS E in the morning peak hour, LOS F in the afternoon peak hour
- 15. Central Avenue & Myrtle Avenue LOS E in the morning peak hour, LOS F in the afternoon peak hour
- 20. Evergreen Avenue & Myrtle Avenue LOS F in the afternoon peak hour
- 22. Evergreen Avenue & Mountain Avenue LOS E in the afternoon peak hour
- 28. Duarte Road & Myrtle Avenue LOS F in the afternoon peak hour
- The transportation system improvements needed to accommodate the Future Conditions will include several strategies to meet the General Plan performance goals, including:
 - Intersection Improvements
 - Traffic Signal System Improvements
 - New Traffic Signals
- Divided into general improvement categories, the transportation improvement program would cost \$7.24 million when contingencies, soft costs, and the increase in CCCI from December 2018 to April 2019 are taken into consideration:

TOTAL	\$7.24 M
Design and Permits	\$0.78 M
Contingency	\$0.33 M
Signal Installation	\$1.61 M
Signal Coordination	\$1.38 M
Signal Equipment Upgrades	\$1.71 M
Intersection	\$1.41 M

- The new projects in the City would pay for the above transportation improvements through a TIF based on the number of afternoon peak hour trips generated by each project.
- New development would be eligible for trip generation discounts based on transit, walk-in, pass-by, and internal capture of trips.

- The 3,457 anticipated afternoon peak hour trips to be generated by proposed development (Tables 3 and 4) applied to the \$7.24 million transportation improvement program cost results in a TIF of \$2,095 per afternoon peak hour trip for new City developments.
- The known projects already in the development entitlement pipeline represent 1,252 of the total growth of 3,457 trips expected by Year 2040 (Table 3). Thus, the known projects are expected to contribute \$2.62 million to the overall transportation improvement program. The remaining \$4.62 million would come from the application of the TIF to the additional General Plan development anticipated to occur in the Study Area.
- Transportation grant funds plus any allocation of funds from the City's Capital Improvement Plan or General Fund could reduce the overall TIF funds needed to complete the improvement program.

References

Guidelines for Implementation of the California Environmental Quality Act, Chapter 3, Title 14, California Code of Regulations, California Natural Resources Agency, amended July 27, 2007.

Monrovia General Plan, City of Monrovia, September 2018.

State of California Assembly Bill No. 1600, Cortese, 1987.

Traffic Impact Analysis for the 1625 Magnolia Avenue Project, Monrovia, Los Angeles County, California, LSA, February 2018.

Traffic Impact Analysis for the Avalon Monrovia Project, Monrovia, Los Angeles County, California, LSA, January 2018.

Traffic Impact Analysis for the Duarte Road Apartments Project, Monrovia, Los Angeles County, California, LSA, September 2017.

Traffic Impact Analysis for the Monrovia Hotel Project, Monrovia, Los Angeles County, California, LSA, May 2018.

Traffic Impact Analysis for the Monrovia Starbucks Project, Monrovia, Los Angeles County, California, LSA, February 2018.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980.

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, 2014.

Appendix A Traffic Counts

Turning Movement Count Report AM

Location ID: 1

North/South: 5th Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	9	Southbound	d	Westbound			ı	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	Т	L	R	T	L	TOLAIS.
7:00	16	2	35	20	293	18	7	0	3	2	66	5	467
7:15	18	5	37	29	347	26	8	3	4	4	94	7	582
7:30	14	6	60	32	299	39	1	1	9	6	121	4	592
7:45	11	6	64	56	297	54	9	2	4	9	156	11	679
8:00	11	6	49	64	345	50	8	5	4	19	154	8	723
8:15	20	6	26	43	291	35	8	6	6	12	143	9	605
8:30	18	8	38	43	311	39	14	4	14	11	138	14	652
8:45	11	6	44	44	336	45	12	1	8	15	149	20	691
Total Valumas	110	4 -	252	221	2510	206	67	2.2	Εĵ	70	1021	70	4001

Total Volume:	119	45	353	331	2519	306	67	22	52	78	1021	78	4991
Approach %	23%	9%	68%	10%	80%	10%	48%	16%	37%	7%	87%	7%	

Pe	eak Hr Begin:	8:00												
	PHV	60	26	157	194	1283	169	42	16	32	57	584	51	2671
	PHF		0.920 0.897						0.703			0.940		0.924

Turning Movement Count Report PM

Location ID: 1

North/South: 5th Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

		Southbound	d		Westbound			Northbound	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	Т	L	R	T	L	TOtals.
16:00	20	4	55	42	135	17	18	5	13	12	330	20	671
16:15	16	7	55	31	201	9	23	5	15	5	341	13	721
16:30	22	5	55	22	174	10	52	8	21	3	326	20	718
16:45	27	4	41	37	178	12	37	5	18	10	390	18	777
17:00	24	5	36	37	176	12	82	22	24	3	355	26	802
17:15	18	4	53	37	213	14	48	12	14	2	338	11	764
17:30	15	3	39	41	197	7	33	7	18	6	352	19	737
17:45	18	3	33	42	216	6	28	3	10	2	387	23	771
Total Volume:	160	35	367	289	1490	87	321	67	133	43	2819	150	5961

Total '	Volume:	160	35	367	289	1490	87	321	67	133	43	2819	150	5961
Appr	oach %	28%	6%	65%	15%	80%	5%	62%	13%	26%	1%	94%	5%	

Peak Hr Begin:	16:45												
PHV	84	16	169	152	764	45	200	46	74	21	1435	74	3080
PHF		0.897			0.910			0.625			0.915		0.960

Pedestrian/Bicycle Count Report

Location ID: 1

North/South: 5th Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	1	0	0	0
7:15	0	0	0	0	1	0	1	0
7:30	1	0	6	0	5	1	2	0
7:45	0	0	4	0	0	0	1	0
8:00	0	1	1	0	1	0	3	0
8:15	0	0	0	0	0	0	0	0
8:30	4	4 0		0	3	0	1	0
8:45	0	0	3	0	0	0	0	0

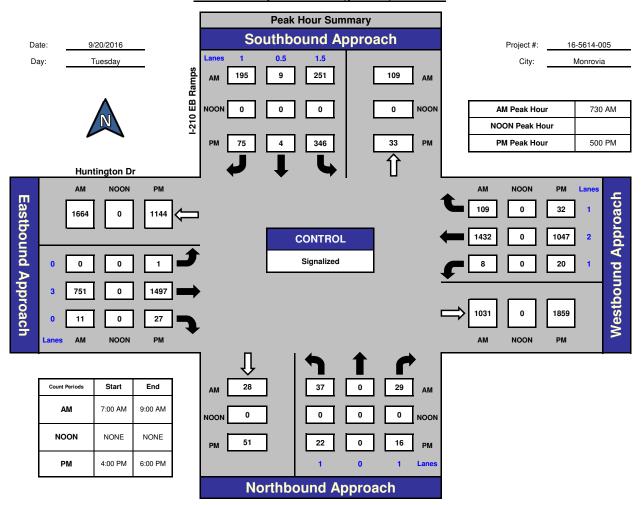
	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	7	0	4	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	3	0	2	0	2	0
16:45	0	0	0	0	0	0	2	0
17:00	0	0	2	0	2	0	0	0
17:15	0	0	0	0	2	0	1	0
17:30	0	0	2	0	4	1	2	0
17:45	0	0	1	1	0	0	0	0

Prepared by City Count, LLC. (www.citycount.com)

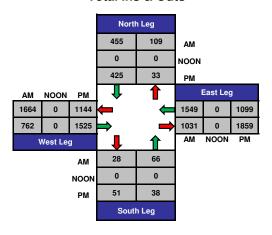
ITM Peak Hour Summary



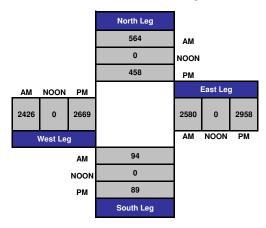
I-210 EB Ramps and Huntington Dr , Monrovia







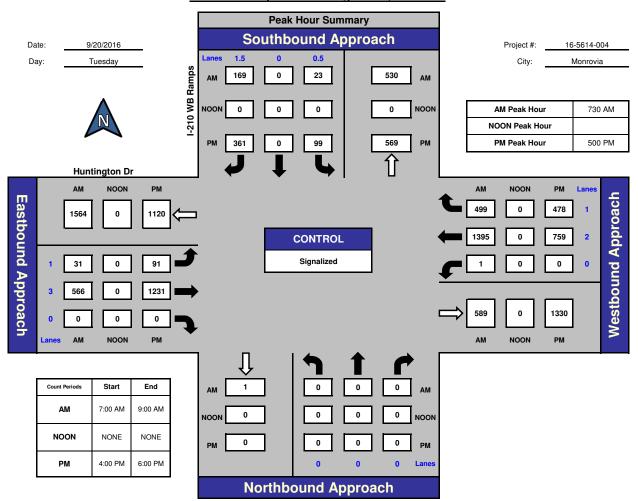
Total Volume Per Leg



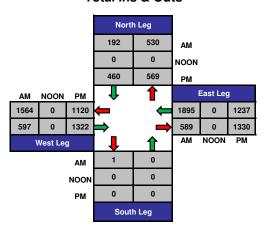
ITM Peak Hour Summary



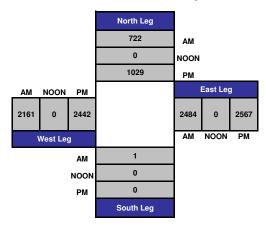
I-210 WB Ramps and Huntington Dr , Monrovia



Total Ins & Outs



Total Volume Per Leg



Turning Movement Count Report AM

Location ID: 2

North/South: Monterey Avenue 09/18/18 Date: East/West: **Huntington Drive** Monrovia, CA City:

	9	Southbound	d		Westbound	1	^	Northbound	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	T	L	TOtals.
7:00	39	6	3	12	397	8	0	12	43	4	56	6	586
7:15	40	7	10	17	418	4	2	23	44	7	87	5	664
7:30	33	20	11	14	370	3	4	54	65	7	110	7	698
7:45	26	17	13	21	348	4	2	58	53	8	156	9	715
8:00	33	13	12	17	320	2	5	25	59	10	105	4	605
8:15	35	7	10	13	362	4	1	5	23	9	120	6	595
8:30	39	5	10	15	357	5	2	16	40	13	112	7	621
8:45	33	9	15	23	345	2	3	9	24	7	120	8	598
Total Volume:	278	84	84	132	2917	32	19	202	351	65	866	52	5082
Approach %	620/	100/	100/	40/	OE0/	10/	20/	250/	610/	70/	000/	E0/	

-	Total Volume:	278	84	84	132	2917	32	19	202	351	65	866	52	5082
	Approach %	62%	19%	19%	4%	95%	1%	3%	35%	61%	7%	88%	5%	

Р	Peak Hr Begin:	7:15												
	PHV	132	57	46	69	1456	13	13	160	221	32	458	25	2682
	PHF		0.918			0.876			0.801			0.744		0.938

Turning Movement Count Report PM

Location ID: 2

North/South: Monterey Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	9	Southbound	d		Westbound	1	^	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	Т	L	R	T	L	TOtals.
16:00	22	17	20	16	174	5	0	15	22	37	320	12	660
16:15	32	21	26	10	207	12	4	23	36	33	280	9	693
16:30	25	22	20	22	184	19	2	9	26	38	293	14	674
16:45	20	24	24	21	200	10	9	15	30	63	269	19	704
17:00	21	21	16	20	230	7	4	9	38	58	311	17	752
17:15	30	24	15	23	168	6	3	22	27	74	275	16	683
17:30	20	36	19	9	237	12	4	10	22	69	284	11	733
17:45	12	28	17	16	168	10	4	14	40	57	297	15	678
Total Volume:	182	193	157	137	1568	81	30	117	241	429	2329	113	5577
Approach %	34%	36%	30%	8%	88%	5%	8%	30%	62%	15%	81%	4%	

Peak Hr Begin:	16:45												
PHV	91	105	74	73	835	35	20	56	117	264	1139	63	2872
PHF		0.900			0.914			0.894			0.949		0.955

Pedestrian/Bicycle Count Report

Location ID: 2

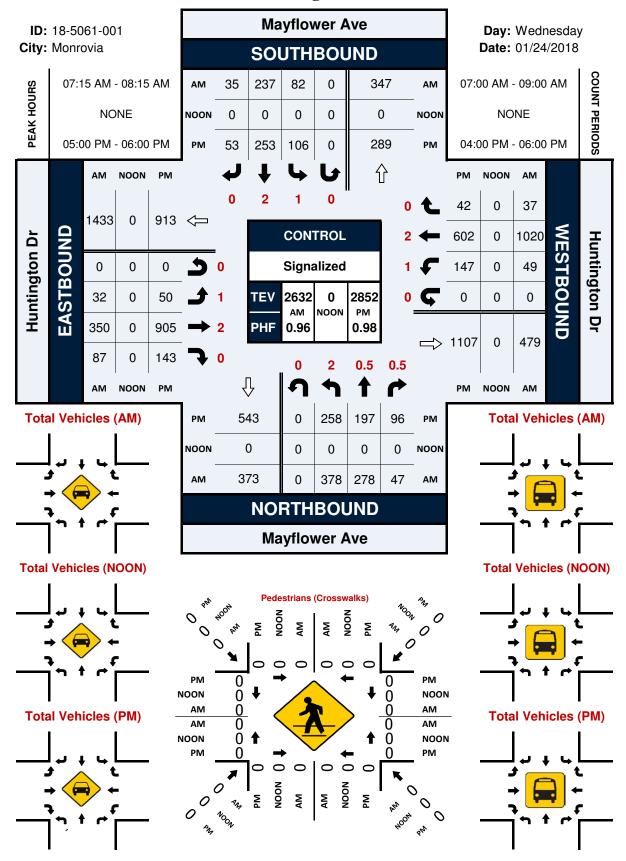
North/South: Monterey Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	2	0	0	0
7:15	1	0	1	0	1	0	1	0
7:30	0	0	0	0	1	0	0	0
7:45	1	0	2	0	4	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	0	0	2	0	2	0	0	0
8:30	0	0 0		0	1	0	1	0
8:45	1	0	2	0	0	0	1	0

	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	0	5	1	0	1
16:15	1	0	1	1	0	0	0	0
16:30	0	0	0	0	2	0	2	2
16:45	0	0	2	0	7	2	2	1
17:00	2	0	4	0	5	0	0	0
17:15	1	0	6	0	3	1	0	0
17:30	0	0	4	0	2	0	1	0
17:45	0	0	5	0	1	0	1	0

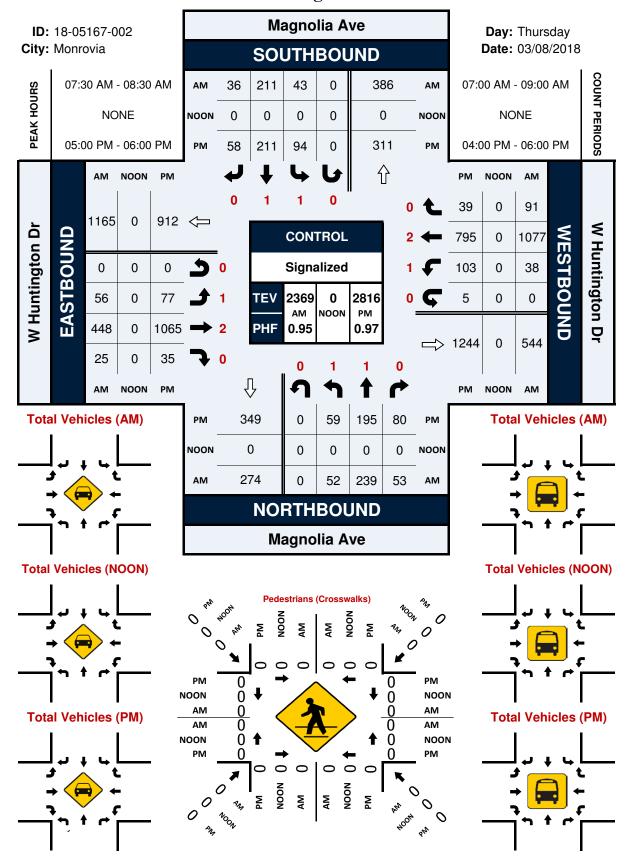
Mayflower Ave & Huntington Dr

Peak Hour Turning Movement Count



Magnolia Ave & W Huntington Dr

Peak Hour Turning Movement Count



Turning Movement Count Report AM

Location ID: 1

North/South: Huntington Dr Date: 06/26/18
East/West: Primrose Ave City: Monrovia, CA

	9	Southbound	d	1	Westbound	1	1	Vorthbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOtals.
7:00	10	0	3	9	297	3	2	0	2	0	44	11	381
7:15	8	1	2	14	263	3	3	1	1	3	70	15	384
7:30	8	0	4	13	272	5	6	0	0	1	81	16	406
7:45	9	0	4	13	228	4	4	3	0	0	109	23	397
8:00	7	0	5	8	232	5	3	1	0	1	86	23	371
8:15	10	0	5	10	236	3	5	3	1	3	105	16	397
8:30	4	1	1	13	219	4	1	2	2	2	82	14	345
8:45	10	0	3	18	207	3	2	1	0	0	121	25	390
Total Volume:	66	2	27	98	1954	30	26	11	6	10	698	143	3071

Total Volume:	66	2	27	98	1954	30	26	11	6	10	698	143	3071
Approach %	69%	2%	28%	5%	94%	1%	60%	26%	14%	1%	82%	17%	

Peak Hr Begin:	7:30												
PHV	34	0	18	44	968	17	18	7	1	5	381	78	1571
PHF		0.867			0.887			0.722			0.879		0.967

Turning Movement Count Report PM

Location ID: 1

North/South: Huntington Dr Date: 06/26/18
East/West: Primrose Ave City: Monrovia, CA

	Southbound			Westbound			Northbound						
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	T	L	R	Т	L	TOLAIS.
16:00	16	3	3	10	179	4	13	6	2	2	252	9	499
16:15	21	1	5	12	195	6	2	3	1	2	281	11	540
16:30	16	2	4	11	182	7	7	2	0	2	272	8	513
16:45	22	2	2	12	196	6	3	0	0	6	230	18	497
17:00	32	2	3	10	195	11	5	2	0	2	291	8	561
17:15	22	2	3	16	186	2	7	1	5	2	287	14	547
17:30	27	2	4	12	195	5	6	1	0	5	303	29	589
17:45	29	0	3	16	178	3	5	1	2	3	230	12	482
Total Volume:	185	14	27	99	1506	44	48	16	10	24	2146	109	4228

Total Volume:	185	14	27	99	1506	44	48	16	10	24	2146	109	4228
Approach %	82%	6%	12%	6%	91%	3%	65%	22%	14%	1%	94%	5%	

Peak Hr Begin:	16:45												
PHV	103	8	12	50	772	24	21	4	5	15	1111	69	2194
PHF		0.831			0.979			0.577			0.886		0.931

Location ID: 1

North/South: Huntington Dr Date: 06/26/18
East/West: Primrose Ave City: Monrovia, CA

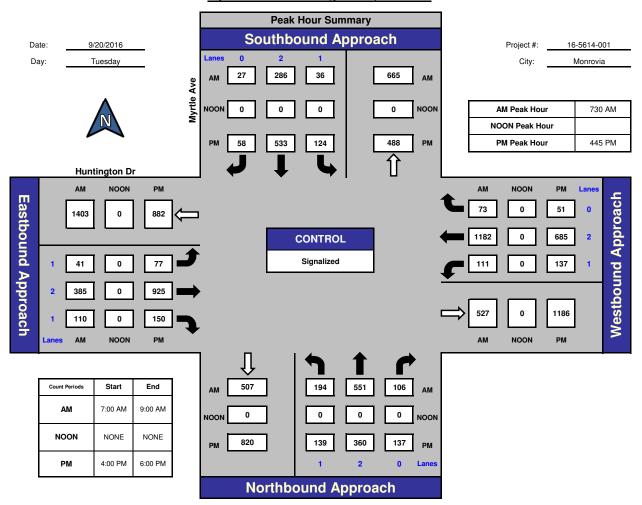
	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	1	0	1	0
7:15	2	0	1	0	1	0	0	0
7:30	1	0	0	1	2	0	0	1
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0
8:30	1	0	0	0	0	0	0	0
8:45	0	0	1	0	0	0	0	0

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	0	2	4	0	0
16:15	1	0	0	0	0	0	0	0
16:30	0	0	2	2	0	1	0	0
16:45	1	0	1	0	0	1	0	0
17:00	0	0	1	0	1	0	0	0
17:15	2	0	5	0	2	1	0	0
17:30	1	0	0	0	1	1	0	0
17:45	0	0	0	0	0	1	0	4

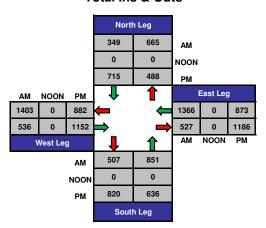
ITM Peak Hour Summary



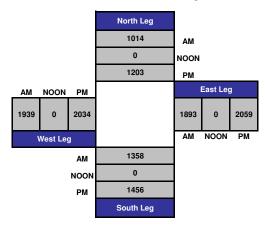
Myrtle Ave and Huntington Dr., Monrovia



Total Ins & Outs



Total Volume Per Leg



Location ID: 2

North/South: Huntington Dr Date: 06/26/18
East/West: Ivy Ave City: Monrovia, CA

	9	Southbound	d		Westbound	1	1	Vorthbound	d	Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	T	L	R	T	L	TOtals.
7:00	8	0	2	18	281	2	0	0	0	1	36	2	350
7:15	4	1	1	14	293	2	2	2	1	3	76	11	410
7:30	5	2	3	17	242	6	4	1	1	2	71	8	362
7:45	6	1	2	16	239	4	2	1	1	4	134	13	423
8:00	12	0	1	13	225	6	1	2	1	2	88	9	360
8:15	11	1	1	11	229	8	1	2	3	5	101	7	380
8:30	16	0	5	20	222	6	2	2	0	5	74	13	365
8:45	16	2	2	13	205	9	2	1	1	5	118	16	390
Total Volume:	78	7	17	122	1936	43	14	11	8	27	698	79	3040

Total Volume:	78	7	17	122	1936	43	14	11	8	27	698	79	3040
Approach %	76%	7%	17%	6%	92%	2%	42%	33%	24%	3%	87%	10%	

Peak Hr Begin:	7:15												
PHV	27	4	7	60	999	18	9	6	4	11	369	41	1555
PHF		0.731		0.871				0.792			0.697		0.919

Location ID: 2

North/South: Huntington Dr Date: 06/26/18
East/West: Ivy Ave City: Monrovia, CA

	9	Southbound	d	1	Westbound	d	^	Northbound	d	Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOLAIS.
16:00	13	0	4	3	182	5	3	0	0	4	269	10	493
16:15	28	2	11	7	190	11	3	2	1	0	285	23	563
16:30	20	1	6	5	170	9	2	1	0	1	300	22	537
16:45	30	1	9	10	180	14	2	0	1	4	335	16	602
17:00	24	1	7	12	219	5	2	0	0	2	300	18	590
17:15	24	1	12	8	146	6	5	1	0	2	291	11	507
17:30	24	1	9	11	197	5	4	3	0	4	334	22	614
17:45	26	1	4	8	155	3	1	1	2	2	221	24	448
Total Volume:	189	8	62	64	1439	58	22	8	4	19	2335	146	4354

Total Volume	: 189	8	62	64	1439	58	22	8	4	19	2335	146	4354
Approach %	73%	3%	24%	4%	92%	4%	65%	24%	12%	1%	93%	6%	

Peak Hr Begin:	16:45												
PHV	102	4	37	41	742	30	13	4	1	12	1260	67	2313
PHF		0.894		0.861				0.643			0.930		0.942

Location ID: 2

North/South: Huntington Dr Date: 06/26/18
East/West: Ivy Ave City: Monrovia, CA

	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	0	0	0	0
7:15	1	0	0	0	2	0	0	0
7:30	0	0	0	0	3	0	0	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	1	0	1	0	0	0
8:15	0	0	0	0	0	0	0	0
8:30	2	0	0	0	0	0	0	0
8:45	0	0	0	0	1	0	0	0

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	1	0	0	0	1	4	0	0
16:15	2	0	0	0	0	0	0	0
16:30	0	0	1	0	0	0	0	0
16:45	1	0	0	0	0	0	0	0
17:00	0	0	0	0	3	0	0	0
17:15	1	0	0	0	0	0	0	0
17:30	0	0	1	0	1	0	0	0
17:45	1	0	0	0	1	0	0	0

Location ID: 3

North/South: California Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	9	Southbound	d		Westbound Northbound Eastbound								
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	Т	L	R	T	L	TOtals.
7:00	9	26	4	9	424	7	9	24	13	4	57	6	592
7:15	15	34	5	9	381	4	7	36	28	3	69	10	601
7:30	11	58	6	4	340	12	19	65	33	3	81	6	638
7:45	10	56	7	2	332	14	28	72	24	7	122	22	696
8:00	18	65	11	15	347	12	23	69	32	12	120	18	742
8:15	22	39	9	10	334	6	15	39	31	18	114	14	651
8:30	21	35	15	5	327	16	17	30	31	8	99	10	614
8:45	10	30	11	4	315	13	18	33	27	9	108	12	590
Total Volume:	116	343	68	58	2800	84	136	368	219	64	770	98	5124
Approach %	22%	65%	13%	2%	95%	3%	19%	51%	30%	7%	83%	11%	

		_											
Peak Hr Begin:	7:30												
PHV	61	218	33	31	1353	44	85	245	120	40	437	60	2727
PHF		0.830		0.955				0.907			0.889		0.919

Location ID: 3

North/South: California Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

		Southbound	d		Westbound	1	1	Vorthbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	T	L	TOLAIS.
16:00	12	34	13	3	159	22	24	26	12	20	282	11	618
16:15	9	31	18	7	155	9	15	17	8	16	300	14	599
16:30	13	50	16	2	175	27	20	36	12	18	245	13	627
16:45	11	43	13	9	209	17	23	38	10	22	272	19	686
17:00	8	52	16	4	198	25	25	40	16	16	307	15	722
17:15	8	40	14	7	185	14	17	33	5	30	339	13	705
17:30	7	51	11	4	155	12	19	55	7	20	257	20	618
17:45	14	48	14	8	172	27	21	56	10	28	296	26	720
Total Volume:	82	349	115	44	1408	153	164	301	80	170	2298	131	5295

Total Volume:	82	349	115	44	1408	153	164	301	80	170	2298	131	5295
Approach %	15%	64%	21%	3%	88%	10%	30%	55%	15%	7%	88%	5%	

Peak Hr Begin:	17:00												
PHV	37	191	55	23	710	78	82	184	38	94	1199	74	2765
PHF		0.931 0.893						0.874			0.895		0.957

Location ID: 3

North/South: California Avenue Date: 09/18/18
East/West: Huntington Drive City: Monrovia, CA

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	1	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0
7:30	0	0	0	0	2	0	0	0
7:45	0	0	0	0	1	0	1	0
8:00	0	0	0	0	0	0	2	0
8:15	3	0	0	0	0	1	2	0
8:30	1	0	2	0	0	0	0	0
8:45	1	0	1	0	0	0	0	0

	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	1	0	0	0	4	2
16:15	3	0	1	0	1	0	4	0
16:30	0	0	0	0	1	0	2	0
16:45	1	1	0	0	1	0	4	0
17:00	1	1	1	0	0	0	3	0
17:15	2	2	0	0	0	0	2	0
17:30	0	0	1	0	0	0	3	0
17:45	2	0	0	0	0	0	1	3

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA

PROJECT: 725 E. HUNTINGTON DRIVE - CITY OF MONROVIA

DATE: WEDNESDAY, NOVEMBER 30, 2016

PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S MOUNTAIN AVENUE
E/W HUNTINGTON DRIVE

FILE NUMBER: 2-AM

١	15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
	TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
	0700-0715	9	73	15	68	256	14	21	98	82	18	40	7
	0715-0730	13	65	14	48	277	17	22	108	91	24	56	15
	0730-0745	13	87	21	59	232	21	22	132	87	20	50	23
	0745-0800	12	111	31	56	219	20	21	135	97	23	75	35
	0800-0815	12	97	26	50	180	21	27	163	82	31	88	39
	0815-0830	11	72	23	61	216	20	30	184	71	41	81	26
	0830-0845	10	70	20	42	205	17	32	142	68	40	60	20
	0845-0900	9	80	27	44	206	20	29	136	63	33	80	17
	0900-0915	7	78	32	48	175	25	26	152	58	34	82	13
	0915-0930	10	65	24	32	156	30	24	127	57	38	72	8
	0930-0945	14	76	24	26	145	31	30	104	53	37	89	8
	0945-1000	15	83	31	27	122	33	28	101	59	31	70	11

1	2	3	4	5	6	7	8	9	10	11	12	
SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
47	336	81	231	984	72	86	473	357	85	221	80	3053
50	360	92	213	908	79	92	538	357	98	269	112	3168
48	367	101	226	847	82	100	614	337	115	294	123	3254
45	350	100	209	820	78	110	624	318	135	304	120	3213
42	319	96	197	807	78	118	625	284	145	309	102	3122
37	300	102	195	802	82	117	614	260	148	303	76	3036
36	293	103	166	742	92	111	557	246	145	294	58	2843
40	299	107	150	682	106	109	519	231	142	323	46	2754
46	302	111	133	598	119	108	484	227	140	313	40	2621
	47 50 48 45 42 37 36 40	SBRT SBTH 47 336 50 360 48 367 45 350 42 319 37 300 36 293 40 299	SBRT SBTH SBLT 47 336 81 50 360 92 48 367 101 45 350 100 42 319 96 37 300 102 36 293 103 40 299 107	SBRT SBTH SBLT WBRT 47 336 81 231 50 360 92 213 48 367 101 226 45 350 100 209 42 319 96 197 37 300 102 195 36 293 103 166 40 299 107 150	SBRT SBTH SBLT WBRT WBTH 47 336 81 231 984 50 360 92 213 908 48 367 101 226 847 45 350 100 209 820 42 319 96 197 807 37 300 102 195 802 36 293 103 166 742 40 299 107 150 682	SBRT SBTH SBLT WBRT WBTH WBLT 47 336 81 231 984 72 50 360 92 213 908 79 48 367 101 226 847 82 45 350 100 209 820 78 42 319 96 197 807 78 37 300 102 195 802 82 36 293 103 166 742 92 40 299 107 150 682 106	SBRT SBTH SBLT WBRT WBTH WBLT NBRT 47 336 81 231 984 72 86 50 360 92 213 908 79 92 48 367 101 226 847 82 100 45 350 100 209 820 78 110 42 319 96 197 807 78 118 37 300 102 195 802 82 117 36 293 103 166 742 92 111 40 299 107 150 682 106 109	SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH 47 336 81 231 984 72 86 473 50 360 92 213 908 79 92 538 48 367 101 226 847 82 100 614 45 350 100 209 820 78 110 624 42 319 96 197 807 78 118 625 37 300 102 195 802 82 117 614 36 293 103 166 742 92 111 557 40 299 107 150 682 106 109 519	SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH NBLT 47 336 81 231 984 72 86 473 357 50 360 92 213 908 79 92 538 357 48 367 101 226 847 82 100 614 337 45 350 100 209 820 78 110 624 318 42 319 96 197 807 78 118 625 284 37 300 102 195 802 82 117 614 260 36 293 103 166 742 92 111 557 246 40 299 107 150 682 106 109 519 231	SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH NBLT EBRT 47 336 81 231 984 72 86 473 357 85 50 360 92 213 908 79 92 538 357 98 48 367 101 226 847 82 100 614 337 115 45 350 100 209 820 78 110 624 318 135 42 319 96 197 807 78 118 625 284 145 37 300 102 195 802 82 117 614 260 148 36 293 103 166 742 92 111 557 246 145 40 299 107 150 682 106 109 519 231 142 <	SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH NBLT EBRT EBTH 47 336 81 231 984 72 86 473 357 85 221 50 360 92 213 908 79 92 538 357 98 269 48 367 101 226 847 82 100 614 337 115 294 45 350 100 209 820 78 110 624 318 135 304 42 319 96 197 807 78 118 625 284 145 309 37 300 102 195 802 82 117 614 260 148 303 36 293 103 166 742 92 111 557 246 145 294 40 299	SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH NBLT EBRT EBTH EBLT 47 336 81 231 984 72 86 473 357 85 221 80 50 360 92 213 908 79 92 538 357 98 269 112 48 367 101 226 847 82 100 614 337 115 294 123 45 350 100 209 820 78 110 624 318 135 304 120 42 319 96 197 807 78 118 625 284 145 309 102 37 300 102 195 802 82 117 614 260 148 303 76 36 293 103 166 742 92 111

A.M. PEAK HOUR 0730-0830

HUNTINGTON DRIVE

123 — 101 — 226 294 — 847 115 — 82

MOUNTAIN AVENUE

DATA PROVIDED BY:

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91005 PH: 626-446-7978

PH: 626-446-7978 FAX: 626-446-2877

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA

PROJECT: 725 E. HUNTINGTON DRIVE - CITY OF MONROVIA

DATE: WEDNESDAY, NOVEMBER 30, 2016

PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S MOUNTAIN AVENUE

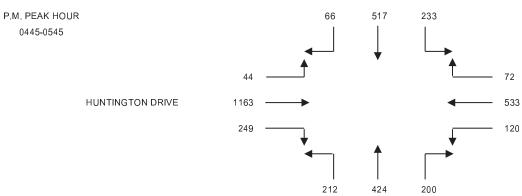
E/W HUNTINGTON DRIVE

FILE NUMBER: 2-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	9	116	52	30	153	49	50	83	41	50	222	16
0315-0330	8	105	51	31	152	41	55	89	43	52	206	13
0330-0345	10	102	53	26	133	31	33	74	33	57	228	21
0345-0400	13	91	53	33	123	43	37	86	47	42	231	15
0400-0415	13	107	53	20	109	30	43	93	30	59	276	14
0415-0430	20	135	65	35	125	42	52	85	35	52	254	17
0430-0445	24	112	57	20	106	32	41	76	41	61	262	16
0445-0500	17	120	64	14	137	29	54	101	58	47	260	10
0500-0515	10	148	57	19	139	29	44	102	44	69	311	11
0515-0530	16	148	61	19	146	33	56	112	54	73	315	14
0530-0545	23	101	51	20	111	29	46	109	56	60	277	9
0545-0600	15	122	61	22	118	33	50	119	58	50	241	9

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	40	414	209	120	561	164	175	332	164	201	887	65	3332
0315-0415	44	405	210	110	517	145	168	342	153	210	941	63	3308
0330-0430	56	435	224	114	490	146	165	338	145	210	989	67	3379
0345-0445	70	445	228	108	463	147	173	340	153	214	1023	62	3426
0400-0500	74	474	239	89	477	133	190	355	164	219	1052	57	3523
0415-0515	71	515	243	88	507	132	191	364	178	229	1087	54	3659
0430-0530	67	528	239	72	528	123	195	391	197	250	1148	51	3789
0445-0545	66	517	233	72	533	120	200	424	212	249	1163	44	3833
0500-0600	64	519	230	80	514	124	196	442	212	252	1144	43	3820

MOUNTAIN AVENUE



DATA PROVIDED BY:

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91005 PH: 626-446-7978

PH: 626-446-7978 FAX: 626-446-2877

Location ID: 12

North/South: Mayflower Avenue Date: 09/25/18
East/West: Central Avenue City: Monrovia, CA

		Southboun	d		Westbound	d	I	Northbound	d		Eastbouna	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals
Movements:	R	Т	L	R	T	L	R	T	L	R	Т	L	Totals:
7:00	0	60	0	55	3	9	0	101	1	0	0	1	230
7:15	0	82	0	72	9	17	0	98	0	0	0	1	279
7:30	0	85	0	64	7	26	0	139	3	0	0	0	324
7:45	0	122	0	58	10	32	0	147	5	0	0	1	375
8:00	0	81	0	53	7	24	0	128	2	0	0	0	295
8:15	1	100	0	72	4	19	0	109	4	0	0	0	309
8:30	0	73	0	69	1	10	0	107	0	0	0	0	260
8:45	2	66	0	49	6	15	0	110	2	0	0	2	252
Total Volume:	3	669	0	492	47	152	0	939	17	0	0	5	2324

Total Volume:	3	669	0	492	47	152	0	939	17	0	0	5	2324
Approach %	0%	100%	0%	71%	7%	22%	0%	98%	2%	0%	0%	100%	

Peak Hr	r Begin:	7:30												
PH	١٧	1	388	0	247	28	101	0	523	14	0	0	1	1303
PH	1F		0.797 0.940						0.883			0.250		0.869

Location ID: 12

North/South: Mayflower Avenue Date: 09/25/18
East/West: Central Avenue City: Monrovia, CA

	,	Southbound	d		Westbound	1	I	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	T	L	R	T	L	Totals.
16:00	0	132	0	16	0	14	0	99	3	0	0	2	266
16:15	0	139	0	21	1	11	0	99	0	0	0	1	272
16:30	1	123	0	17	1	13	0	112	0	1	0	8	276
16:45	0	122	0	21	0	11	0	131	2	0	0	1	288
17:00	1	180	0	29	2	19	0	126	0	0	0	6	363
17:15	0	188	0	23	1	24	0	149	1	0	0	3	389
17:30	0	145	0	20	0	15	0	116	1	0	0	3	300
17:45	0	156	0	33	1	16	0	120	3	0	0	2	331

Total Volume:	2	1185	0	180	6	123	0	952	10	1	0	26	2485
Approach %	0%	100%	0%	58%	2%	40%	0%	99%	1%	4%	0%	96%	

F	Peak Hr Begin:	17:00												
	PHV	1	669	0	105	4	74	0	511	5	0	0	14	1383
	PHF		0.891			0.915			0.860			0.583		0.889

Location ID: 12

North/South: Mayflower Avenue Date: 09/25/18
East/West: Central Avenue City: Monrovia, CA

	No	rth	Ec	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	6	2
7:30	0	0	5	0	0	0	1	1
7:45	0	0	1	0	0	0	4	0
8:00	0	0	2	0	0	0	2	0
8:15	0	0	1	0	0	0	1	0
8:30	0	0	1	0	0	0	0	0
8:45	0	0	3	0	0	0	1	0

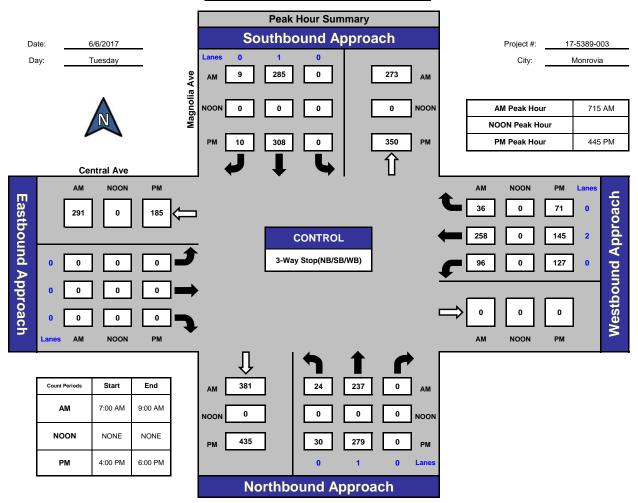
	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	1	0	0	0	1	0
16:15	0	0	1	0	0	0	2	1
16:30	0	0	1	0	0	0	2	1
16:45	0	0	0	2	0	0	1	0
17:00	0	0	1	0	0	0	1	3
17:15	0	0	3	0	0	0	2	2
17:30	0	0	2	0	0	0	0	0
17:45	0	0	4	0	0	0	3	2

ITM Peak Hour Summary

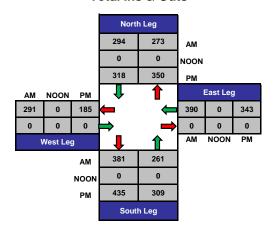


National Data & Surveying Services

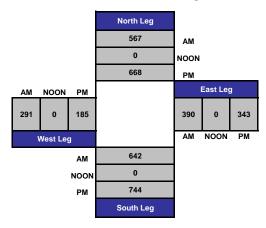
Magnolia Ave and Central Ave, Monrovia



Total Ins & Outs



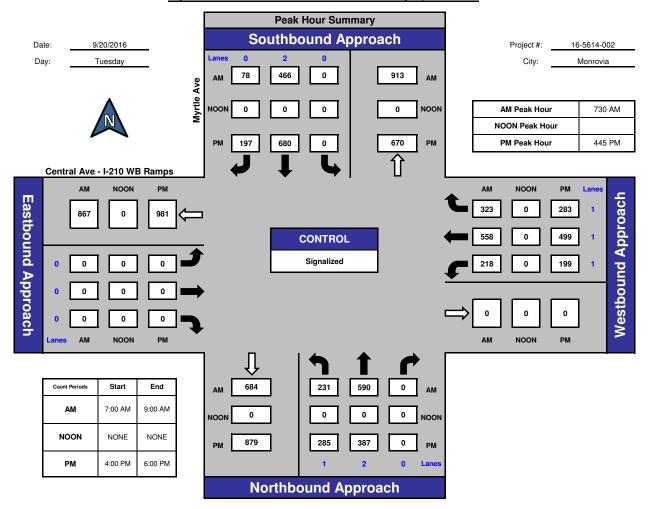
Total Volume Per Leg



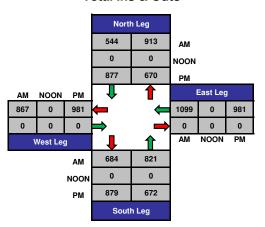
ITM Peak Hour Summary



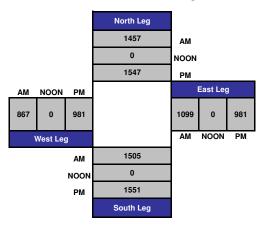
Myrtle Ave and Central Ave - I-210 WB Ramps, Monrovia







Total Volume Per Leg



Location ID: 5

North/South: California Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	9	Southbound	d		Westbound	1	I	Northbound	d		Eastbouna	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	T	L	Totals.
7:00	12	44	0	30	79	20	0	50	17	0	0	0	252
7:15	10	63	0	47	87	27	0	80	20	0	0	0	334
7:30	12	67	0	54	86	36	0	99	20	0	0	0	374
7:45	9	66	0	45	72	28	0	99	21	0	0	0	340
8:00	9	62	0	44	77	20	0	58	16	0	0	0	286
8:15	5	54	0	37	85	19	0	62	14	0	0	0	276
8:30	11	53	0	36	73	30	0	66	14	0	0	0	283
8:45	4	40	0	35	65	14	0	54	9	0	0	0	221
Total Valumas	72	440	0	220	624	104	0	ECO	121	0	Λ	0	2266

Total Volume:	72	449	0	328	624	194	0	568	131	0	0	0	2366
Approach %	14%	86%	0%	29%	54%	17%	0%	81%	19%	0%	0%	0%	

Peak Hr Begin:	7:15												
PHV	40	258	0	190	322	111	0	336	77	0	0	0	1334
PHF		0.943			0.885			0.860			0.000		0.892

Location ID: 5

North/South: California Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	9	Southbound	d		Westbound	d	1	Northboun	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	T	L	R	Т	L	Totals.
16:00	17	61	0	9	31	13	0	38	12	0	0	0	181
16:15	11	98	0	8	57	12	0	58	14	0	0	0	258
16:30	9	92	0	12	41	24	0	67	11	0	0	0	256
16:45	18	102	0	17	43	19	0	61	12	0	0	0	272
17:00	14	102	0	13	39	21	0	43	19	0	0	0	251
17:15	10	84	0	11	43	20	0	55	13	0	0	0	236
17:30	16	95	0	11	33	20	0	81	13	0	0	0	269
17:45	16	93	0	4	44	25	0	85	13	0	0	0	280

Total Volume:	111	727	0	85	331	154	0	488	107	0	0	0	2003
Approach %	13%	87%	0%	15%	58%	27%	0%	82%	18%	0%	0%	0%	

Peak Hr Begin:	16:15												
PHV	52	394	0	50	180	76	0	229	56	0	0	0	1037
PHF		0.929			0.968			0.913			0.000		0.953

Location ID: 5

North/South: California Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	No	rth	Ec	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	0	0	0	0
7:15	1	0	0	1	0	0	1	0
7:30	0	0	0	0	0	0	0	0
7:45	1	0	0	1	0	0	0	1
8:00	0	0	0	0	0	0	1	0
8:15	0	0	1	1	0	0	1	0
8:30	0	0	1	2	0	0	0	0
8:45	1	0	3	2	0	0	1	0

	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	1	0	0	1	1
16:15	1	1	0	0	0	0	1	1
16:30	0	0	1	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	1	0
17:15	1	0	0	0	0	0	2	0
17:30	1	0	0	0	0	0	1	0
17:45	1	0	2	0	0	0	1	0

Location ID: 6

North/South: Mountain Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	9	Southbound	d		Westbound	1	/	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	T	L	R	Т	L	TOtals.
7:00	32	86	0	90	116	50	0	72	56	0	0	0	502
7:15	34	91	0	139	182	40	0	80	47	0	0	0	613
7:30	27	114	0	100	197	57	0	107	51	0	0	0	653
7:45	23	111	0	100	223	81	0	118	44	0	0	0	700
8:00	44	143	0	137	162	76	0	117	43	0	0	0	722
8:15	25	109	0	132	182	74	0	121	29	0	0	0	672
8:30	25	103	0	146	156	54	0	107	54	0	0	0	645
8:45	35	106	0	138	159	58	0	124	42	0	0	0	662
Total Volume:	245	863	0	982	1377	490	0	846	366	0	0	0	5169

Tota	al Volume:	245	863	0	982	1377	490	0	846	366	0	0	0	5169
App	proach %	22%	78%	0%	34%	48%	17%	0%	70%	30%	0%	0%	0%	

Peak Hr Begin:	7:30												
PHV	119	477	0	469	764	288	0	463	167	0	0	0	2747
PHF		0.797 0.941						0.972			0.000		0.951

Location ID: 6

North/South: Mountain Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	9	Southbound	d		Westbound	d	1	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	Т	L	R	Т	L	TOtals.
16:00	59	118	0	65	60	71	0	116	52	0	0	0	541
16:15	54	151	0	58	39	51	0	110	70	0	0	0	533
16:30	40	147	0	78	46	45	0	118	64	0	0	0	538
16:45	50	142	0	65	53	56	0	135	66	0	0	0	567
17:00	58	152	0	76	57	51	0	143	56	0	0	0	593
17:15	46	123	0	70	56	63	0	122	60	0	0	0	540
17:30	37	142	0	84	48	61	0	121	54	0	0	0	547
17:45	39	148	0	86	49	48	0	143	51	0	0	0	564
Total Volume:	383	1123	0	582	408	446	0	1008	473	0	0	0	4423

Total Volume:	383	1123	0	582	408	446	0	1008	473	0	0	0	4423
Approach %	25%	75%	0%	41%	28%	31%	0%	68%	32%	0%	0%	0%	

Peak Hr Begin:	16:45												
PHV	191	559	0	295	214	231	0	521	236	0	0	0	2247
PHF		0.893 0.959						0.942			0.000		0.947

Location ID: 6

North/South: Mountain Avenue Date: 09/18/18
East/West: Central Avenue City: Monrovia, CA

	No	rth	Ec	ıst	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	1	2	0	0	0	2	0
7:15	1	0	4	0	0	0	0	0
7:30	1	0	2	0	0	0	2	0
7:45	0	0	3	2	0	0	0	1
8:00	1	0	3	0	0	0	0	0
8:15	0	0	2	0	0	0	0	0
8:30	0	0	1	0	0	0	0	0
8:45	0	0	3	0	0	0	0	0

	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	3	0	0	0	2	0
16:15	0	0	3	0	0	0	1	0
16:30	2	0	0	1	0	0	1	0
16:45	0	0	1	1	0	0	3	0
17:00	3	0	3	1	0	0	0	3
17:15	0	0	2	1	0	0	0	0
17:30	0	0	5	1	0	0	1	0
17:45	0	0	3	0	0	0	0	0

Location ID: 4

North/South: Mayflower Avenue Date: 09/18/18
East/West: Diamond/Evergreen City: Monrovia, CA

	9	Southbound	d		Westbound	1	1	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
7:00	7	54	11	3	3	2	14	101	30	8	6	0	239
7:15	3	81	9	4	8	2	29	106	33	13	3	1	292
7:30	3	92	15	3	12	5	30	148	58	25	1	1	393
7:45	10	106	18	4	11	9	34	155	62	23	3	1	436
8:00	5	99	12	1	4	2	32	129	31	15	4	2	336
8:15	3	78	15	2	0	4	27	120	23	7	4	2	285
8:30	1	75	17	6	2	2	10	123	20	7	5	2	270
8:45	8	68	11	1	1	3	17	128	21	9	2	2	271
Total Volume:	40	653	108	2/	//1	20	103	1010	278	107	28	11	2522

Total Vo	lume:	40	653	108	24	41	29	193	1010	278	107	28	11	2522
Approa	ch %	5%	82%	13%	26%	44%	31%	13%	68%	19%	73%	19%	8%	

Peak Hr	Begin:	7:15												
PH	IV	21	378	54	12	35	18	125	538	184	76	11	5	1457
PH	IF		0.845	<u> </u>					0.844			0.852		0.835

Location ID: 4

North/South: Mayflower Avenue Date: 09/18/18
East/West: Diamond/Evergreen City: Monrovia, CA

	9	Southbound	d		Westbound	H	/	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	Т	L	TOtals.
16:00	2	125	22	5	1	4	16	106	12	19	4	0	316
16:15	2	133	21	2	0	5	16	108	16	21	8	1	333
16:30	1	122	26	2	1	3	16	119	8	25	12	0	335
16:45	1	103	36	2	1	2	13	109	12	24	11	4	318
17:00	3	138	32	3	2	8	13	129	14	35	14	0	391
17:15	4	166	52	1	0	6	25	119	12	34	18	0	437
17:30	2	137	28	7	5	5	16	121	12	47	19	1	400
17:45	5	143	28	1	0	3	8	109	13	23	14	3	350
Total Volume:	20	1067	245	23	10	36	123	920	99	228	100	9	2880

Tota	al Volume:	20	1067	245	23	10	36	123	920	99	228	100	9	2880
App	proach %	2%	80%	18%	33%	14%	52%	11%	81%	9%	68%	30%	3%	

Peak Hr Begin:	17:00												
PHV	14	584	140	12	7	22	62	478	51	139	65	4	1578
PHF		0.831			0.603			0.947			0.776		0.903

Location ID: 4

North/South: Mayflower Avenue Date: 09/18/18
East/West: Diamond/Evergreen City: Monrovia, CA

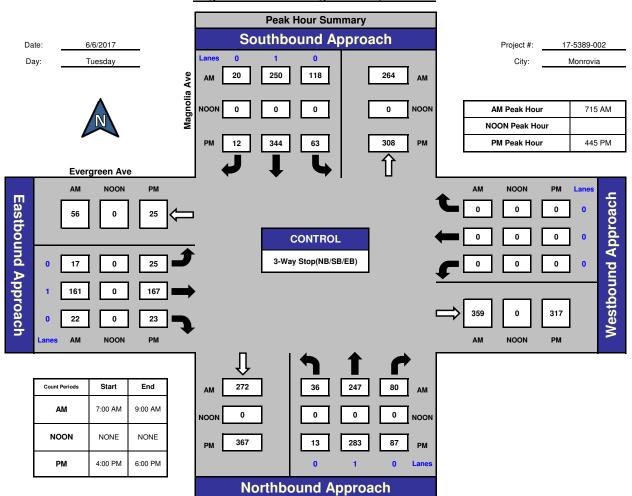
	No	rth	Ec	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	1	0	0	0	0	0
7:15	0	0	1	0	0	0	3	0
7:30	0	0	1	0	0	0	2	1
7:45	0	0	0	0	0	0	2	1
8:00	0	0	1	0	0	0	4	0
8:15	0	0	0	0	1	0	1	0
8:30	0	0	0	0	0	0	3	0
8:45	0	0	1	1	0	0	1	0

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	2	4	0	0	2	0
16:15	0	0	1	2	0	0	1	1
16:30	0	0	1	0	0	0	1	0
16:45	0	0	0	1	0	0	2	0
17:00	4	0	1	1	1	0	1	0
17:15	0	0	1	0	0	0	2	0
17:30	0	0	1	5	0	0	1	0
17:45	0	0	3	0	0	0	1	0

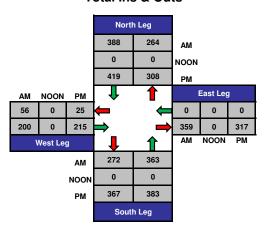
ITM Peak Hour Summary



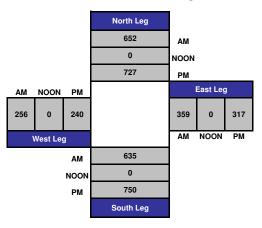
Magnolia Ave and Evergreen Ave, Monrovia



Total Ins & Outs



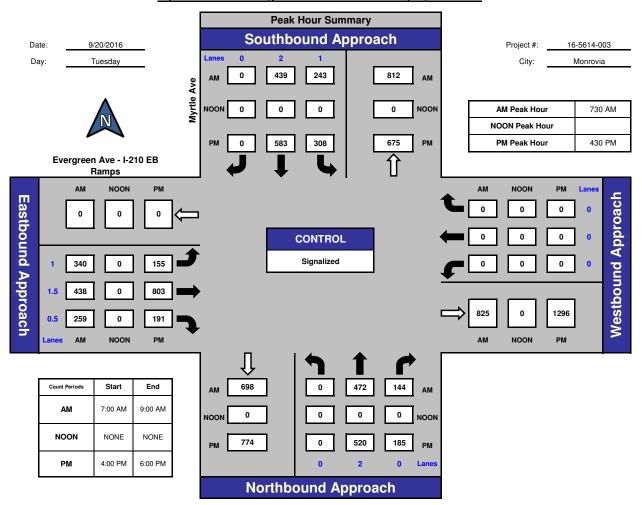
Total Volume Per Leg



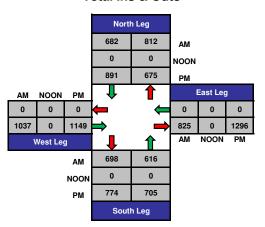
ITM Peak Hour Summary



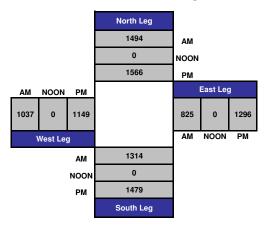
Myrtle Ave and Evergreen Ave - I-210 EB Ramps, Monrovia







Total Volume Per Leg



Location ID: 7

North/South: California Avenue Date: 09/18/18
East/West: Evergreen Avenue City: Monrovia, CA

	,	Southbound	d		Westbound	1	I	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	T	L	TOtals.
7:00	0	42	11	0	0	0	28	56	0	9	26	10	182
7:15	0	50	12	0	0	0	33	54	0	3	33	10	195
7:30	0	85	10	0	0	0	44	91	0	7	38	22	297
7:45	0	89	13	0	0	0	49	99	0	6	39	13	308
8:00	0	85	7	0	0	0	43	90	0	9	32	15	281
8:15	0	60	19	0	0	0	29	72	0	10	50	9	249
8:30	0	58	13	0	0	0	25	67	0	11	46	4	224
8:45	0	62	13	0	0	0	22	71	0	8	47	9	232
Total Volume:	0	531	98	0	0	0	273	600	0	63	311	92	1968

Approach % 0% 84% 16% 0% 0% 0% 31% 69% 0% 14% 67% 20%	I	Total Volume:	0	531	98	0	0	0	273	600	0	63	311	92	1968
		Approach %	0%	84%	16%	0%	0%	0%	31%	69%	0%	14%	67%	20%	

Pe	ak Hr Begin:	7:30												
	PHV	0	319	49	0	0	0	165	352	0	32	159	59	1135
	PHF		0.902			0.000			0.873			0.906		0.921

Location ID: 7

North/South: California Avenue Date: 09/18/18
East/West: Evergreen Avenue City: Monrovia, CA

		Southbound	d		Westbound	d	1	Vorthbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	T	L	R	Т	L	TOtals.
16:00	0	66	33	0	0	0	38	60	0	20	158	6	381
16:15	0	53	22	0	0	0	35	45	0	19	144	5	323
16:30	0	85	24	0	0	0	44	64	0	21	155	9	402
16:45	0	85	47	0	0	0	28	64	0	20	166	9	419
17:00	0	77	50	0	0	0	49	62	0	30	159	4	431
17:15	0	76	37	0	0	0	32	56	0	23	162	6	392
17:30	0	81	29	0	0	0	48	89	0	25	153	8	433
17:45	0	86	29	0	0	0	36	82	0	18	173	16	440
Total Volume:	0	609	271	0	0	0	310	522	0	176	1270	63	3221

	Total Volume:	O	609	2/1	U	Ü	Ü	310	522	Ü	1/6	12/0	63	3221
	Approach %	0%	69%	31%	0%	0%	0%	37%	63%	0%	12%	84%	4%	
_														

Peak Hr Begir	: 17:00												
PHV	0	320	145	0	0	0	165	289	0	96	647	34	1696
PHF		0.915			0.000			0.828			0.938		0.964

Location ID: 7

North/South: California Avenue Date: 09/18/18
East/West: Evergreen Avenue City: Monrovia, CA

	No	rth	Ec	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	1	0	1	0
7:15	0	0	0	0	1	1	0	0
7:30	0	0	0	1	0	0	1	0
7:45	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	1	0
8:30	0	0	1	0	0	0	0	0
8:45	0	0	3	1	0	0	0	0

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	0	0	1	0	0
16:15	0	0	0	0	0	1	1	0
16:30	0	0	0	0	0	0	1	1
16:45	0	0	1	0	0	1	0	0
17:00	0	0	0	1	0	0	0	0
17:15	0	0	0	1	0	0	2	0
17:30	0	0	0	0	0	0	1	0
17:45	0	0	0	0	0	0	2	0

Location ID: 8

North/South: 09/18/18 Mountain Avenue Date: East/West: Monrovia, CA Evergreen Avenue City:

	,	Southbound	d		Nestbound	I	^	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	T	L	R	Т	L	TOtals.
7:00	0	65	68	0	0	0	17	77	0	27	57	49	360
7:15	0	57	62	0	0	0	27	79	0	38	60	64	387
7:30	0	83	83	0	0	0	32	83	0	37	66	72	456
7:45	0	130	65	0	0	0	29	96	0	53	67	69	509
8:00	0	136	88	0	0	0	21	87	0	54	74	54	514
8:15	0	101	79	0	0	0	20	89	0	53	85	68	495
8:30	0	102	62	0	0	0	13	91	0	32	60	69	429
8:45	0	96	63	0	0	0	20	87	0	38	65	73	442
Total Volume:	0	770	570	0	0	0	179	689	0	332	534	518	3592

Total Volume:	0	770	570	0	0	0	179	689	0	332	534	518	3592
Approach %	0%	57%	43%	0%	0%	0%	21%	79%	0%	24%	39%	37%	

Peak Hr Begin:	7:30												
PHV	0	450	315	0	0	0	102	355	0	197	292	263	1974
PHF		0.854						0.914			0.913		0.960

Location ID: 8

North/South: Mountain Avenue Date: 09/18/18
East/West: Evergreen Avenue City: Monrovia, CA

	,	Southbound	d		Westbound	d	1	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	T	L	R	Т	L	TOtals.
16:00	0	104	79	0	0	0	37	127	0	54	233	44	678
16:15	0	120	82	0	0	0	33	120	0	49	211	54	669
16:30	0	115	82	0	0	0	30	106	0	53	257	72	715
16:45	0	121	67	0	0	0	23	152	0	50	248	55	716
17:00	0	117	81	0	0	0	31	129	0	34	290	61	743
17:15	0	112	85	0	0	0	29	128	0	45	287	60	746
17:30	0	115	81	0	0	0	13	131	0	37	256	45	678
17:45	0	113	81	0	0	0	17	130	0	51	231	63	686
Total Volume:	0	917	638	0	0	0	213	1023	0	373	2013	454	5631

Total Volume:	0	917	638	0	0	0	213	1023	0	373	2013	454	5631
Approach %	0%	59%	41%	0%	0%	0%	17%	83%	0%	13%	71%	16%	

Peak Hr Begin:	16:30												
PHV	0	465	315	0	0	0	113	515	0	182	1082	248	2920
PHF		0.985			0.000			0.897			0.964		0.979

Location ID: 8

North/South: Mountain Avenue Date: 09/18/18
East/West: Evergreen Avenue City: Monrovia, CA

	No	rth	Ec	ıst	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	5	0	0	0	2	0
7:15	0	0	3	0	1	0	0	0
7:30	0	0	3	0	1	0	3	0
7:45	0	0	2	0	0	0	0	1
8:00	0	0	2	0	0	0	0	0
8:15	0	0	2	0	0	0	0	1
8:30	0	0	0	0	3	0	0	1
8:45	0	0	4	0	0	0	0	0

	No	rth	Ec	ıst	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	7	0	1	0	2	0
16:15	0	0	2	0	0	0	1	1
16:30	0	0	1	0	0	0	4	0
16:45	0	0	1	1	0	1	1	0
17:00	0	0	4	0	0	0	0	2
17:15	0	0	3	1	0	0	0	0
17:30	0	0	3	1	1	1	1	0
17:45	0	0	3	0	3	0	3	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA
PROJECT: CITY OF MONROVIA

DATE: WEDNESDAY, AUGUST 29, 2018

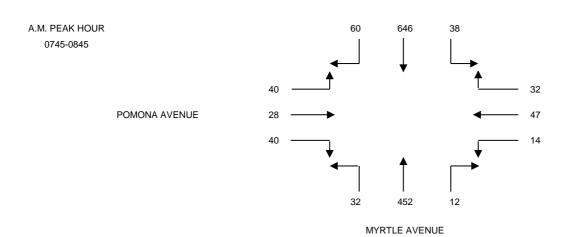
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S MYRTLE AVENUE

E/W POMONA AVENUE

FILE NUMBER: 1-AM

ſ	15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
ı			_										
L	TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
	0700-0715	20	98	15	10	10	3	2	97	9	9	1	8
	0715-0730	18	102	9	7	11	5	2	104	11	5	3	6
	0730-0745	12	144	5	6	19	2	1	101	7	3	3	11
	0745-0800	12	161	5	7	17	4	2	105	7	5	3	16
	0800-0815	15	165	10	7	11	2	3	111	7	11	7	8
	0815-0830	15	170	11	8	10	3	4	115	8	12	8	8
	0830-0845	18	150	12	10	9	5	3	121	10	12	10	8
	0845-0900	15	140	10	7	8	3	4	116	7	10	7	8

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	62	505	34	30	57	14	7	407	34	22	10	41	1223
0715-0815	57	572	29	27	58	13	8	421	32	24	16	41	1298
0730-0830	54	640	31	28	57	11	10	432	29	31	21	43	1387
0745-0845	60	646	38	32	47	14	12	452	32	40	28	40	1441
0800-0900	63	625	43	32	38	13	14	463	32	45	32	32	1432



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

.

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA PROJECT: CITY OF MONROVIA

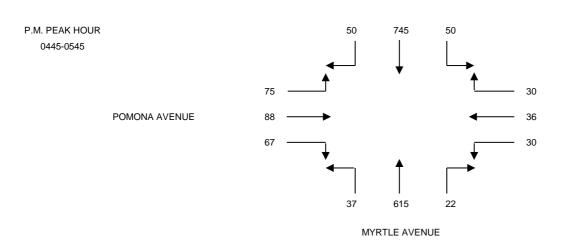
DATE: WEDNESDAY, AUGUST 29, 2018

PERIOD: 04:00 PM TO 06:00 PM INTERSECTION: N/S MYRTLE AVENUE E/W POMONA AVENUE

FILE NUMBER: 1-PM

_													
	15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
	TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
	0400-0415	8	167	7	5	5	7	5	157	5	9	20	12
	0415-0430	9	145	10	4	4	7	2	123	4	13	17	11
	0430-0445	10	173	13	5	5	8	3	162	6	12	20	14
	0445-0500	14	185	18	6	4	8	4	168	6	12	21	17
	0500-0515	14	180	10	10	9	7	6	160	11	21	20	26
	0515-0530	14	177	8	9	9	8	7	157	12	20	22	22
	0530-0545	8	203	14	5	14	7	5	130	8	14	25	10
	0545-0600	8	194	14	3	15	8	6	123	7	14	23	16

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0400-0500	41	670	48	20	18	30	14	610	21	46	78	54	1650
0415-0515	47	683	51	25	22	30	15	613	27	58	78	68	1717
0430-0530	52	715	49	30	27	31	20	647	35	65	83	79	1833
0445-0545	50	745	50	30	36	30	22	615	37	67	88	75	1845
0500-0600	44	754	46	27	47	30	24	570	38	69	90	74	1813



DATA PROVIDED BY:

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91005 PH: 626-446-7978

FAX: 626-446-2877

Location ID: 9

North/South: 5th Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	Southbound				Westbound	d	1	Northbound	d		Eastbound	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOtals.
7:00	6	0	6	9	255	2	1	2	3	1	58	2	345
7:15	7	0	9	20	311	1	0	4	6	1	70	3	432
7:30	15	2	20	25	283	0	2	13	4	1	117	3	485
7:45	10	8	20	47	319	1	1	18	10	7	126	5	572
8:00	10	17	24	41	340	2	1	6	9	13	173	6	642
8:15	6	3	12	34	299	2	1	8	5	4	164	5	543
8:30	11	2	12	23	293	0	3	3	11	7	156	4	525
8:45	11	0	14	10	211	1	1	4	4	4	154	1	415
Total Volume:	76	32	117	209	2311	9	10	58	52	38	1018	29	3959
Approach %	34%	14%	52%	8%	91%	0%	8%	48%	43%	4%	94%	3%	

Peak Hr Begin:	7:45												
PHV	37	30	68	145	1251	5	6	35	35	31	619	20	2282
PHF		0.662			0.914			0.655		0.872			0.889

Location ID: 9

North/South: 5th Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	Totals.
16:00	4	0	7	8	149	1	0	2	0	6	308	4	489
16:15	1	5	13	10	131	4	1	2	3	7	289	4	470
16:30	5	6	21	8	150	1	0	3	1	4	327	7	533
16:45	4	3	12	9	148	0	2	2	6	9	332	2	529
17:00	5	6	31	17	205	0	0	2	4	7	314	7	598
17:15	6	5	38	14	175	1	4	0	3	1	364	5	616
17:30	1	4	21	14	169	2	3	2	6	8	337	3	570
17:45	3	6	19	21	193	0	2	0	3	3	330	6	586
				•		•	•		•	•	•	•	
Total Volume:	29	35	162	101	1320	9	12	13	26	45	2601	38	4391

Total Volume:	29	35	162	101	1320	9	12	13	26	45	2601	38	4391
Approach %	13%	15%	72%	7%	92%	1%	24%	25%	51%	2%	97%	1%	

Peak Hr Begin:	17:00												
PHV	15	21	109	66	742	3	9	4	16	19	1345	21	2370
PHF		0.740			0.913			0.659		0.936			0.962

Pedestrian/Bicycle Count Report

Location ID: 9

North/South: 5th Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

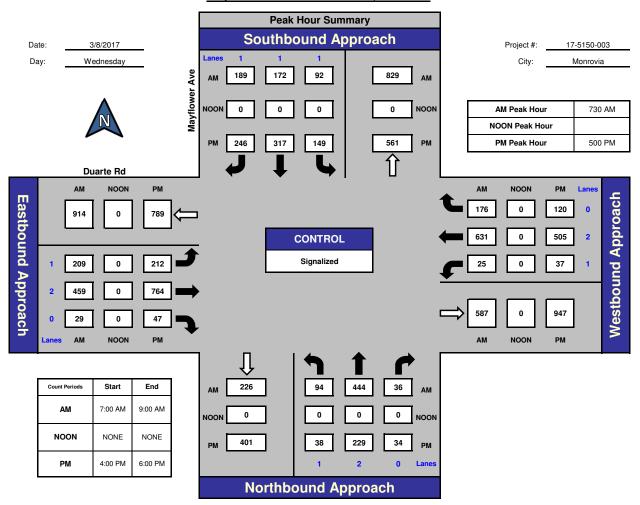
	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	0	0	0	0	0	0
7:15	1	0	0	0	1	1	0	0
7:30	0	0	1	0	1	0	1	0
7:45	0	1	2	0	1	0	3	0
8:00	0	0	2	0	1	0	1	0
8:15	2	0	1	0	0	0	1	0
8:30	1	3	1	0	1	0	0	0
8:45	0	0	0	0	2	0	0	0

	No	rth	Ec	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	1	0	0	0	0	0	0	0
16:15	0	0	3	0	5	0	1	0
16:30	2	0	1	0	2	1	2	1
16:45	2	0	0	0	1	0	2	0
17:00	0	0	0	0	1	0	1	1
17:15	0	0	1	0	2	0	0	0
17:30	0	0	1	0	2	0	0	0
17:45	1	0	0	0	1	1	1	0

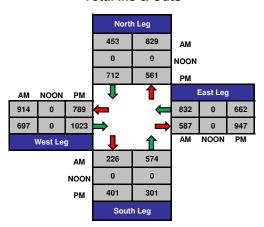
ITM Peak Hour Summary



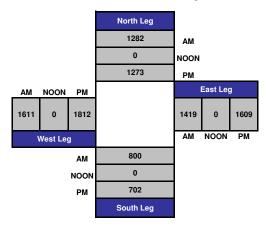
Mayflower Ave and Duarte Rd, Monrovia







Total Volume Per Leg



Turning Movement Count Report AM

Location ID: 10

North/South: Magnolia Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	9	Southbound	d		Westbound	1	^	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	T	L	R	Т	L	TOtals.
7:00	31	0	19	30	139	3	1	1	0	0	52	38	314
7:15	45	0	23	42	186	1	0	1	0	0	81	51	430
7:30	26	1	48	47	201	0	1	1	0	0	110	28	463
7:45	28	0	65	70	225	4	0	0	0	1	114	49	556
8:00	36	0	27	32	193	3	0	0	2	2	100	60	455
8:15	24	3	22	30	199	1	0	0	1	1	117	53	451
8:30	34	1	30	20	177	2	1	0	2	3	85	45	400
8:45	25	0	11	30	167	1	1	1	0	1	104	42	383
Total Volume:	249	5	245	301	1487	15	4	4	5	8	763	366	3452
Approach %	50%	1%	49%	17%	82%	1%	31%	31%	38%	1%	67%	32%	

Turning Movement Count Report PM

Location ID: 10

North/South: Magnolia Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	9	Southbound	d		Westbound	1	I	Vorthbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	Т	L	R	T	L	R	Т	L	TOLAIS.
16:00	47	0	29	35	82	2	2	0	2	1	184	48	432
16:15	34	0	24	42	110	1	0	0	0	2	185	46	444
16:30	33	0	50	35	112	0	4	0	1	1	202	61	499
16:45	41	0	35	39	103	0	1	2	0	0	188	61	470
17:00	44	0	34	43	119	0	2	1	1	0	218	50	512
17:15	41	0	44	32	142	1	0	0	2	0	209	56	527
17:30	35	0	44	25	133	1	0	0	0	1	232	64	535
17:45	53	0	31	46	131	0	1	1	2	1	235	67	568
Total Volume:	328	0	291	297	932	5	10	4	8	6	1653	453	3987

Total Volume:	328	0	291	297	932	5	10	4	8	6	1653	453	3987
Approach %	53%	0%	47%	24%	76%	0%	45%	18%	36%	0%	78%	21%	

Pea	ak Hr Begin:	17:00												
	PHV	173	0	153	146	525	2	3	2	5	2	894	237	2142
	PHF		0.959			0.951			0.625			0.935		0.943

Pedestrian/Bicycle Count Report

Location ID: 10

North/South: Magnolia Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

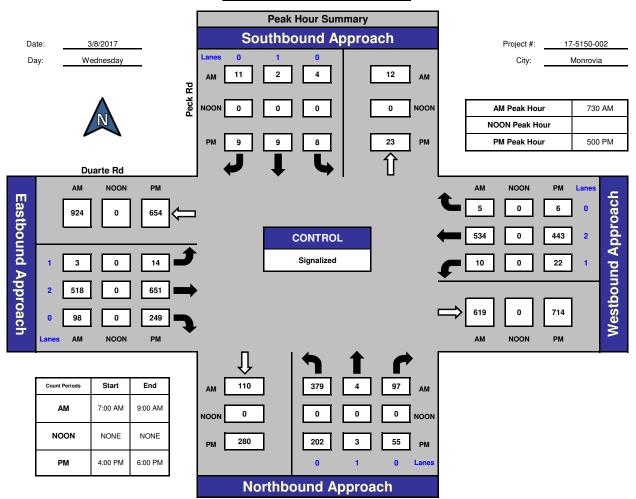
	No	rth	Ed	ast	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	1	0	0	0	0	5	0
7:15	3	0	0	0	1	0	6	0
7:30	1	1	0	0	8	2	9	2
7:45	1	0	0	0	11	0	8	0
8:00	1	0	0	0	1	0	2	0
8:15	1	0	0	0	0	0	0	0
8:30	1	0	0	0	2	0	1	0
8:45	1	1	0	0	3	0	4	0

	No	rth	Ed	ast	Soi	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	2	1	0	0	0	0	3	0
16:15	0	1	0	0	1	0	1	0
16:30	0	1	0	0	2	2	1	2
16:45	3	0	0	0	0	0	2	0
17:00	3	1	0	0	0	0	5	0
17:15	2	2	0	0	0	0	2	0
17:30	2	1	0	0	0	0	1	0
17:45	0	0	0	0	0	0	0	0

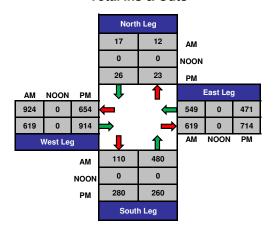
ITM Peak Hour Summary



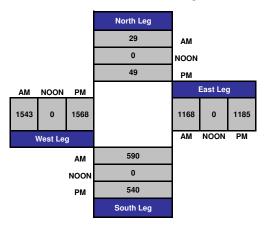
Peck Rd and Duarte Rd , Monrovia







Total Volume Per Leg



Turning Movement Count Report AM

Location ID: 1

North/South: Myrtle Ave Date: 08/18/16
East/West: Duarte Rd City: Monrovia, CA

	9	Southbound	d	1	Westbound	d	1	Northboun	d		Eastbouna	1]
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	TOLAIS.
7:00	19	80	4	1	60	7	5	83	23	22	40	22	366
7:15	30	103	4	4	73	17	7	139	20	10	41	16	464
7:30	29	119	4	6	100	17	8	88	33	34	55	40	533
7:45	29	152	7	11	60	14	12	119	34	34	95	39	606
8:00	38	139	9	7	69	19	12	99	34	38	57	19	540
8:15	36	123	5	6	72	9	11	95	31	20	72	26	506
8:30	50	101	10	4	80	12	12	131	29	21	59	36	545
8:45	49	104	13	7	66	18	7	97	28	29	64	36	518
9:00													0
9:15													0
9:30													0
9:45													0
Total Volume:	280	921	56	46	580	113	74	851	232	208	483	234	4078
Approach %	22%	73%	4%	6%	78%	15%	6%	74%	20%	22%	52%	25%	
Peak Hr Begin:	7:45												
PHV	153	515	31	28	281	54	47	444	128	113	283	120	2197
PHF		0.930			0.945			0.900			0.768		0.906

Turning Movement Count Report PM

Location ID: 1

North/South: Myrtle Ave Date: 08/18/16
East/West: Duarte Rd City: Monrovia, CA

	S	outhbound	d	I	Westbound	l	^	Northbound	d		Eastbouna	l	1
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOtals.
15:00	29	105	10	5	49	21	12	69	19	25	77	38	459
15:15	32	102	7	10	46	10	21	162	20	21	74	32	537
15:30	37	145	4	10	61	16	7	81	23	45	93	22	544
15:45	28	149	8	2	60	11	19	109	25	42	96	33	582
16:00	29	127	7	9	45	15	11	103	20	48	87	24	525
16:15	27	123	7	5	51	10	11	111	19	40	107	41	552
16:30	23	118	7	4	77	18	9	100	25	54	107	38	580
16:45	39	135	10	12	70	10	13	103	14	56	120	36	618
17:00	45	165	6	6	70	8	19	87	20	70	97	42	635
17:15	28	154	10	8	82	15	14	120	25	82	126	26	690
17:30	54	160	16	7	56	11	14	125	20	58	107	36	664
17:45	32	139	7	7	88	13	9	96	31	63	130	35	650
18:00	47	155	10	6	82	26	8	86	16	60	100	46	642
18:15	35	139	4	7	57	13	13	117	33	61	112	31	622
18:30	24	137	7	5	56	14	8	85	13	59	107	29	544
18:45	21	146	4	3	68	13	12	85	18	53	69	29	521
Total Volume:	530	2199	124	106	1018	224	200	1639	341	837	1609	538	9365

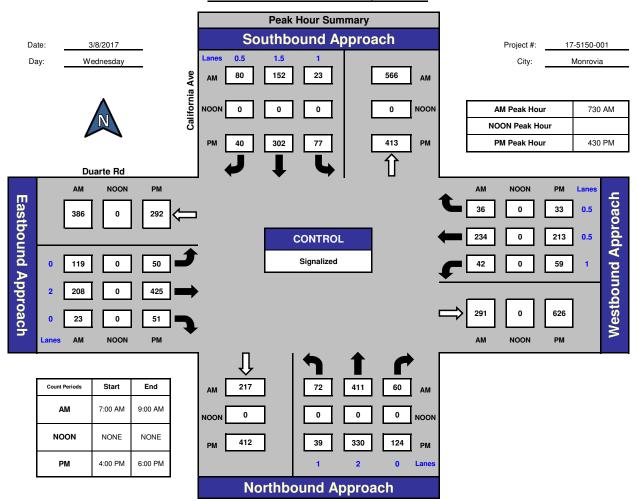
Total Volume:	530	2199	124	106	1018	224	200	1639	341	837	1609	538	9365
Approach %	19%	77%	4%	8%	76%	17%	9%	75%	16%	28%	54%	18%	

Peak Hr Begin:	17:15												
PHV	161	608	43	28	308	65	45	427	92	263	463	143	2646
PHF		0.883			0.879			0.887			0.928		0.959

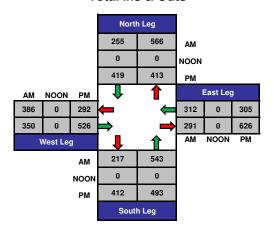
ITM Peak Hour Summary



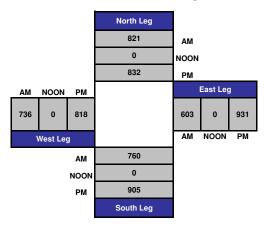
California Ave and Duarte Rd, Monrovia







Total Volume Per Leg



Turning Movement Count Report AM

Location ID: 11

North/South: Mountain Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	9	Southbound	d		Westbound	1	^	Northbound	d		Eastbouna		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	T	L	R	T	L	R	T	L	TOtals.
7:00	26	23	7	44	37	6	14	37	8	4	22	23	251
7:15	36	21	13	38	45	6	33	37	5	10	32	28	304
7:30	26	26	16	52	50	16	38	40	12	4	52	35	367
7:45	43	39	28	38	51	25	41	52	6	6	50	40	419
8:00	34	54	17	27	58	24	23	43	5	10	43	34	372
8:15	38	29	20	26	54	9	27	41	3	6	45	37	335
8:30	31	31	19	25	44	7	17	25	1	1	51	30	282
8:45	41	30	11	33	29	10	18	37	7	9	48	32	305
Total Volume:	275	253	131	283	368	103	211	312	47	50	343	259	2635

Total Volume:	275	253	131	283	368	103	211	312	47	50	343	259	2635
Approach %	42%	38%	20%	38%	49%	14%	37%	55%	8%	8%	53%	40%	

Peak Hr Begin:	7:30												
PHV	141	148	81	143	213	74	129	176	26	26	190	146	1493
PHF		0.841			0.911			0.836			0.943		0.891

Turning Movement Count Report PM

Location ID: 11

North/South: Mountain Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	9	Southbound	d		Westbound	1	/	Northbound	d		Eastbound		
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	Т	L	R	Т	L	R	Т	L	R	Т	L	TOtals.
16:00	51	60	24	28	38	4	17	46	7	22	91	38	426
16:15	35	54	29	36	28	10	15	36	7	16	119	41	426
16:30	39	65	26	29	27	9	28	29	3	29	119	41	444
16:45	46	59	28	42	41	7	21	26	8	20	123	49	470
17:00	45	72	26	33	44	4	25	26	5	32	115	40	467
17:15	49	62	23	34	40	8	21	38	2	23	99	41	440
17:30	49	68	20	41	50	21	29	37	4	25	120	35	499
17:45	51	81	31	56	33	13	22	46	13	21	97	61	525
Total Volume:	365	521	207	200	301	76	178	28/	10	122	883	3/16	3607

Total Volum	e: 365	521	207	299	301	76	178	284	49	188	883	346	3697
Approach %	33%	48%	19%	44%	45%	11%	35%	56%	10%	13%	62%	24%	

F	Peak Hr Begin:	17:00												
	PHV	194	283	100	164	167	46	97	147	24	101	431	177	1931
	PHF		0.885			0.842			0.827			0.948		0.920

Pedestrian/Bicycle Count Report

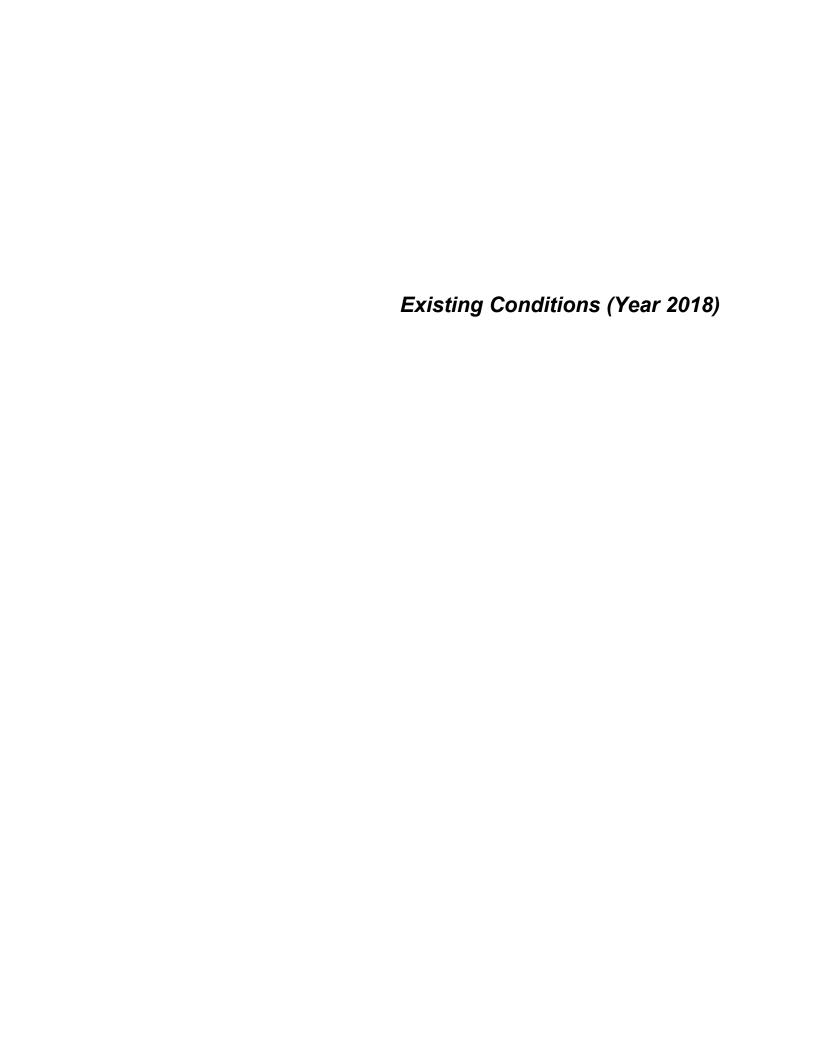
Location ID: 11

North/South: Mountain Avenue Date: 09/18/18
East/West: Duarte Road City: Monrovia, CA

	North		Ed	ast	Soi	uth	West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	4	1	0	0	0	0
7:15	0	0	1	0	0	0	0	0
7:30	3	0	3	0	2	0	3	0
7:45	0	0	1	5	0	1	0	0
8:00	0	0	3	0	3	1	1	0
8:15	0	0	1	0	1	2	0	0
8:30	0	0	0	0	2	0	0	0
8:45	1	2	6	0	1	0	2	0

	No	rth	Ec	ıst	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	2	0	0	0	1	0
16:15	0	0	4	0	0	0	0	1
16:30	0	0	0	1	0	1	2	1
16:45	1	0	3	1	0	0	3	1
17:00	0	0	1	0	1	0	0	0
17:15	0	0	0	0	0	0	1	0
17:30	0	0	3	0	1	1	0	1
17:45	0	0	0	0	0	1	1	0

Appendix B Level of Service Worksheets



Intersection Capacity Utilization Analysis

1. Huntington Drive & Fifth Avenue

Overlapping Right Turn:

Through Lane Capacity: 1600 vph North/South Split Phase: Υ Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	60	0.000	N/S 1:	0.134 *
Southbound	Through	0.50	1,600	26	0.054	N/S 2:	0.000
	Left	1.00	1,600	157	0.098 *	E/W 1:	0.306
	Right	1.00	1,600	194	0.072	E/W 2:	0.433 *
Westbound	Through	2.00	3,200	1,283	0.401 *		
	Left	1.00	1,600	169	0.106	V/C Ratio:	0.567
	Right	0.50	0	42	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	16	0.036 *	ITS:	0.000
	Left	1.00	1,600	32	0.020		
	Right	0.50	0	57	0.000	ICU:	0.667
Eastbound	Through	1.50	3,200	584	0.200		
	Left	1.00	1,600	51	0.032 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	84	0.000	N/S 1:	0.260 *
Southbound	Through	0.50	1,600	16	0.063	N/S 2:	0.000
	Left	1.00	1,600	169	0.106 *	E/W 1:	0.483 *
	Right	1.00	1,600	152	0.042	E/W 2:	0.285
Westbound	Through	2.00	3,200	764	0.239		
	Left	1.00	1,600	45	0.028 *	V/C Ratio:	0.743
	Right	0.50	0	200	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	46	0.154 *	ITS:	0.000
	Left	1.00	1,600	74	0.046		
	Right	0.50	0	21	0.000	ICU:	0.843
Eastbound	Through	1.50	3,200	1,435	0.455 *		
	Left	1.00	1,600	74	0.046	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

2. Huntington Drive & I-210 EB Ramps/ Driveway

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	195	0.122 *	N/S 1:	0.097
Southbound	Through	0.50	111	9	0.081	N/S 2:	0.145 *
	Left	1.50	3,089	251	0.081	E/W 1:	0.164
	Right	1.00	1,600	109	0.028	E/W 2:	0.448 *
Westbound	Through	2.00	3,200	1,432	0.448 *		
	Left	1.00	1,600	8	0.005	V/C Ratio:	0.593
	Right	1.00	1,600	29	0.016	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	1.00	1,600	37	0.023 *		
	Right	0.50	0	11	0.000	ICU:	0.693
Eastbound	Through	2.50	4,800	751	0.159		
	Left	0.00	0	0	0.000 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	75	0.047	N/S 1:	0.113
Southbound	Through	0.50	37	4	0.109 *	N/S 2:	0.123 *
	Left	1.50	3,163	346	0.109	E/W 1:	0.331 *
	Right	1.00	1,600	32	0.000	E/W 2:	0.328
Westbound	Through	2.00	3,200	1,047	0.327		
	Left	1.00	1,600	20	0.013 *	V/C Ratio:	0.454
	Right	1.00	1,600	16	0.004	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	1.00	1,600	22	0.014 *		
	Right	0.50	0	27	0.000	ICU:	0.554
Eastbound	Through	2.50	4,800	1,497	0.318 *		
	Left	0.00	1,600	1	0.001	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

3. Huntington Drive & I-210 WB Ramps

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.50	2,817	169	0.050	N/S 1:	0.060 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.050
	Left	0.50	383	23	0.060 *	E/W 1:	0.119
	Right	1.00	1,600	499	0.282	E/W 2:	0.455 *
Westbound	Through	2.00	3,200	1,395	0.436 *		
	Left	0.00	1,600	1	0.001	V/C Ratio:	0.515
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.615
Eastbound	Through	3.00	4,800	566	0.118		
	Left	1.00	1,600	31	0.019 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.50	2,511	361	0.115	N/S 1:	0.144 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.115
	Left	0.50	689	99	0.144 *	E/W 1:	0.257
	Right	1.00	1,600	499	0.240	E/W 2:	0.493 *
Westbound	Through	2.00	3,200	1,395	0.436 *		
	Left	0.00	1,600	1	0.001	V/C Ratio:	0.637
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.737
Eastbound	Through	3.00	4,800	1,231	0.256		
	Left	1.00	1,600	91	0.057 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

4. Huntington Drive & Monterey Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	132	0.000	N/S 1:	0.137
Southbound	Through	0.50	1,600	57	0.118 *	N/S 2:	0.256 *
	Left	1.00	1,600	46	0.029	E/W 1:	0.151
	Right	1.00	1,600	69	0.029	E/W 2:	0.471 *
Westbound	Through	2.00	3,200	1,456	0.455 *		
	Left	1.00	1,600	13	0.008	V/C Ratio:	0.727
	Right	0.50	0	13	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	160	0.108	ITS:	0.000
	Left	1.00	1,600	221	0.138 *		
	Right	1.00	1,600	32	0.000	ICU:	0.827
Eastbound	Through	2.00	3,200	458	0.143		
	Left	1.00	1,600	25	0.016 *	LOS:	D

	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	0.50	0	91	0.000	N/S 1:	0.094
Through	0.50	1,600	105	0.123 *	N/S 2:	0.196 *
Left	1.00	1,600	74	0.046	E/W 1:	0.378 *
Right	1.00	1,600	73	0.023	E/W 2:	0.300
Through	2.00	3,200	835	0.261		
Left	1.00	1,600	35	0.022 *	V/C Ratio:	0.574
Right	0.50	0	20	0.000	Loss Time:	0.100
Through	0.50	1,600	56	0.048	ITS:	0.000
Left	1.00	1,600	117	0.073 *		
Right	1.00	1,600	264	0.128	ICU:	0.674
Through	2.00	3,200	1,139	0.356 *		
Left	1.00	1,600	63	0.039	LOS:	В
	Through Left Right Through Left Right Through Left Right Through Left Right Through	Through 0.50 Left 1.00 Right 1.00 Through 2.00 Left 1.00 Right 0.50 Through 0.50 Through 0.50 Left 1.00 Right 1.00 Right 1.00 Through 2.00	Through 0.50 1,600 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200	Through 0.50 1,600 105 Left 1.00 1,600 74 Right 1.00 1,600 73 Through 2.00 3,200 835 Left 1.00 1,600 35 Right 0.50 0 20 Through 0.50 1,600 56 Left 1.00 1,600 117 Right 1.00 1,600 264 Through 2.00 3,200 1,139	Through 0.50 1,600 105 0.123 * Left 1.00 1,600 74 0.046 Right 1.00 1,600 73 0.023 Through 2.00 3,200 835 0.261 Left 1.00 1,600 35 0.022 * Right 0.50 0 20 0.000 Through 0.50 1,600 56 0.048 Left 1.00 1,600 117 0.073 * Right 1.00 1,600 264 0.128 Through 2.00 3,200 1,139 0.356 *	Through 0.50 1,600 105 0.123 * N/S 2: Left 1.00 1,600 74 0.046 E/W 1: Right 1.00 1,600 73 0.023 E/W 2: Through 2.00 3,200 835 0.261 U/C Ratio: Left 1.00 1,600 35 0.022 * V/C Ratio: Right 0.50 0 20 0.000 Loss Time: Through 0.50 1,600 56 0.048 ITS: Left 1.00 1,600 117 0.073 * ICU: Right 1.00 1,600 264 0.128 ICU: Through 2.00 3,200 1,139 0.356 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

5. Huntington Drive & Mayflower Avenue

Through Lane Capacity: 1600 vph Left-Turn Lane Capacity: 1600 vph Double-Left Penalty: 0 % Right-Turn on Red: 50 % Overlapping Right Turn:

North/South Split Phase: Ν East/West Split Phase: Ν Loss Time % per Cycle: 10%

ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	35	0.000	N/S 1:	0.254 *
Southbound	Through	1.50	3,200	237	0.085	N/S 2:	0.203
	Left	1.00	1,600	82	0.051 *	E/W 1:	0.168
	Right	0.50	0	37	0.000	E/W 2:	0.350 *
Westbound	Through	1.50	3,200	1,020	0.330 *		
	Left	1.00	1,600	49	0.031	V/C Ratio:	0.604
	Right	0.50	0	47	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	278	0.203 *	ITS:	0.000
	Left	2.00	3,200	378	0.118		
	Right	0.50	0	87	0.000	ICU:	0.704
Eastbound	Through	1.50	3,200	350	0.137		
	Left	1.00	1,600	32	0.020 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	53	0.000	N/S 1:	0.249 *
Southbound	Through	1.50	3,200	253	0.096	N/S 2:	0.177
	Left	1.00	1,600	106	0.066 *	E/W 1:	0.420 *
	Right	0.50	0	42	0.000	E/W 2:	0.232
Westbound	Through	1.50	3,200	602	0.201		
	Left	1.00	1,600	147	0.092 *	V/C Ratio:	0.669
	Right	0.50	0	96	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	197	0.183 *	ITS:	0.000
	Left	2.00	3,200	258	0.081		
	Right	0.50	0	143	0.000	ICU:	0.769
Eastbound	Through	1.50	3,200	905	0.328 *		
	Left	1.00	1,600	50	0.031	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

6. Huntington Drive & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	36	0.000	N/S 1:	0.210 *
Southbound	Through	0.50	1,600	211	0.154	N/S 2:	0.187
	Left	1.00	1,600	43	0.027 *	E/W 1:	0.172
	Right	0.50	0	91	0.000	E/W 2:	0.400 *
Westbound	Through	1.50	3,200	1,077	0.365 *		
	Left	1.00	1,600	38	0.024	V/C Ratio:	0.610
	Right	0.50	0	53	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	239	0.183 *	ITS:	0.000
	Left	1.00	1,600	52	0.033		
	Right	0.50	0	25	0.000	ICU:	0.710
Eastbound	Through	1.50	3,200	448	0.148		
	Left	1.00	1,600	56	0.035 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	58	0.000	N/S 1:	0.231 *
Southbound	Through	0.50	1,600	211	0.168	N/S 2:	0.205
	Left	1.00	1,600	94	0.059 *	E/W 1:	0.412 *
	Right	0.50	0	39	0.000	E/W 2:	0.309
Westbound	Through	1.50	3,200	795	0.261		
	Left	1.00	1,600	108	0.068 *	V/C Ratio:	0.643
	Right	0.50	0	80	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	195	0.172 *	ITS:	0.000
	Left	1.00	1,600	59	0.037		
	Right	0.50	0	35	0.000	ICU:	0.743
Eastbound	Through	1.50	3,200	1,065	0.344 *		
	Left	1.00	1,600	77	0.048	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

7. Huntington Drive & Primrose Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	34	0.000	N/S 1:	0.027
Southbound	Through	0.34	1,600	0	0.033 *	N/S 2:	0.034 *
	Left	0.33	1,600	18	0.011	E/W 1:	0.132
	Right	0.50	0	44	0.000	E/W 2:	0.365 *
Westbound	Through	1.50	3,200	968	0.316 *		
	Left	1.00	1,600	17	0.011	V/C Ratio:	0.399
	Right	0.33	0	18	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	7	0.016	ITS:	0.000
	Left	0.33	1,600	1	0.001 *		
	Right	0.50	0	5	0.000	ICU:	0.499
Eastbound	Through	1.50	3,200	381	0.121		
	Left	1.00	1,600	78	0.049 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	103	0.000	N/S 1:	0.027
Southbound	Through	0.34	1,600	8	0.077 *	N/S 2:	0.080
	Left	0.33	1,600	12	0.008	E/W 1:	0.367
	Right	0.50	0	50	0.000	E/W 2:	0.300
Westbound	Through	1.50	3,200	772	0.257		
	Left	1.00	1,600	24	0.015 *	V/C Ratio:	0.447
	Right	0.33	0	21	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.019	ITS:	0.000
	Left	0.33	1,600	5	0.003 *		
	Right	0.50	0	15	0.000	ICU:	0.547
Eastbound	Through	1.50	3,200	1,111	0.352 *		
	Left	1.00	1,600	69	0.043	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

8. Huntington Drive & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	27	0.000	N/S 1:	0.228 *
Southbound	Through	1.50	3,200	286	0.098	N/S 2:	0.219
	Left	1.00	1,600	36	0.023 *	E/W 1:	0.189
	Right	0.50	0	73	0.000	E/W 2:	0.418 *
Westbound	Through	1.50	3,200	1,182	0.392 *		
	Left	1.00	1,600	111	0.069	V/C Ratio:	0.646
	Right	0.50	0	106	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	551	0.205 *	ITS:	0.000
	Left	1.00	1,600	194	0.121		
	Right	1.00	1,600	110	0.008	ICU:	0.746
Eastbound	Through	2.00	3,200	385	0.120		
	Left	1.00	1,600	41	0.026 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	58	0.000	N/S 1:	0.233
Southbound	Through	1.50	3,200	533	0.185 *	N/S 2:	0.272 *
	Left	1.00	1,600	124	0.078	E/W 1:	0.375 *
	Right	0.50	0	51	0.000	E/W 2:	0.278
Westbound	Through	1.50	3,200	685	0.230		
	Left	1.00	1,600	137	0.086 *	V/C Ratio:	0.647
	Right	0.50	0	137	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	360	0.155	ITS:	0.000
	Left	1.00	1,600	139	0.087 *		
	Right	1.00	1,600	150	0.050	ICU:	0.747
Eastbound	Through	2.00	3,200	925	0.289 *		
	Left	1.00	1,600	77	0.048	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

9. Huntington Drive & Ivy Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Overlapping Right Turn:

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	27	0.000	N/S 1:	0.016
Southbound	Through	0.34	1,600	4	0.024 *	N/S 2:	0.027 *
	Left	0.33	1,600	7	0.004	E/W 1:	0.130
	Right	0.50	0	60	0.000	E/W 2:	0.357 *
Westbound	Through	1.50	3,200	999	0.331 *		
	Left	1.00	1,600	18	0.011	V/C Ratio:	0.384
	Right	0.33	0	9	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	6	0.012	ITS:	0.000
	Left	0.33	1,600	4	0.003 *		
	Right	0.50	0	11	0.000	ICU:	0.484
Eastbound	Through	1.50	3,200	369	0.119		
	Left	1.00	1,600	41	0.026 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	102	0.000	N/S 1:	0.034
Southbound	Through	0.34	1,600	4	0.089 *	N/S 2:	0.090 3
	Left	0.33	1,600	37	0.023	E/W 1:	0.417
	Right	0.50	0	41	0.000	E/W 2:	0.287
Westbound	Through	1.50	3,200	742	0.245		
	Left	1.00	1,600	30	0.019 *	V/C Ratio:	0.507
	Right	0.33	0	13	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.011	ITS:	0.000
	Left	0.33	1,600	1	0.001 *		
	Right	0.50	0	12	0.000	ICU:	0.607
Eastbound	Through	1.50	3,200	1,260	0.398 *		
	Left	1.00	1,600	67	0.042	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

10. Huntington Drive & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	61	0.000	N/S 1:	0.124
Southbound	Through	0.50	1,600	218	0.174 *	N/S 2:	0.249 *
	Left	1.00	1,600	33	0.021	E/W 1:	0.177
	Right	0.50	0	31	0.000	E/W 2:	0.471 *
Westbound	Through	1.50	3,200	1,353	0.433 *		
	Left	1.00	1,600	44	0.028	V/C Ratio:	0.720
	Right	0.50	0	85	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	245	0.103	ITS:	0.000
	Left	1.00	1,600	120	0.075 *		
	Right	0.50	0	40	0.000	ICU:	0.820
Eastbound	Through	1.50	3,200	437	0.149		
	Left	1.00	1,600	60	0.038 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	37	0.000	N/S 1:	0.117
Southbound	Through	0.50	1,600	191	0.143 *	N/S 2:	0.167 *
	Left	1.00	1,600	55	0.034	E/W 1:	0.453 *
	Right	0.50	0	23	0.000	E/W 2:	0.275
Westbound	Through	1.50	3,200	710	0.229		
	Left	1.00	1,600	78	0.049 *	V/C Ratio:	0.620
	Right	0.50	0	82	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	184	0.083	ITS:	0.000
	Left	1.00	1,600	38	0.024 *		
	Right	0.50	0	94	0.000	ICU:	0.720
Eastbound	Through	1.50	3,200	1,199	0.404 *		
	Left	1.00	1,600	74	0.046	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

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Ν

10%

0%

11. Huntington Drive & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase:
Left-Turn Lane Capacity: 1600 vph East/West Split Phase:
Double-Left Penalty: 0 % Loss Time % per Cycle:
Right-Turn on Red: 50 % ITS Percentage:

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	48	0.000	N/S 1:	0.286
Southbound	Through	1.50	3,200	367	0.130 *	N/S 2:	0.341
	Left	1.00	1,600	101	0.063	E/W 1:	0.179
	Right	0.50	0	226	0.000	E/W 2:	0.412
Westbound	Through	1.50	3,200	847	0.335 *		
	Left	1.00	1,600	82	0.051	V/C Ratio:	0.753
	Right	0.50	0	100	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	614	0.223	ITS:	0.000
	Left	1.00	1,600	337	0.211 *		
	Right	0.50	0	115	0.000	ICU:	0.853
Eastbound	Through	1.50	3,200	294	0.128		
	Left	1.00	1,600	123	0.077 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	66	0.000	N/S 1:	0.341 *
Southbound	Through	1.50	3,200	517	0.182	N/S 2:	0.315
	Left	1.00	1,600	233	0.146 *	E/W 1:	0.516 *
	Right	0.50	0	72	0.000	E/W 2:	0.217
Westbound	Through	1.50	3,200	533	0.189		
	Left	1.00	1,600	120	0.075 *	V/C Ratio:	0.857
	Right	0.50	0	200	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	424	0.195 *	ITS:	0.000
	Left	1.00	1,600	212	0.133		
	Right	0.50	0	249	0.000	ICU:	0.957
Eastbound	Through	1.50	3,200	1,163	0.441 *		
	Left	1.00	1,600	44	0.028	LOS:	Е

^{*} Critical Movement

Intersection Capacity Utilization Analysis

12. Central Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	1	0.000	N/S 1:	0.163 *
Southbound	Through	1.50	3,200	388	0.122	N/S 2:	0.131
	Left	0.00	0	0	0.000 *	E/W 1:	0.063
	Right	0.50	0	247	0.000	E/W 2:	0.173 *
Westbound	Through	0.50	1,600	28	0.172 *		
	Left	1.00	1,600	101	0.063	V/C Ratio:	0.336
	Right	0.50	0	0	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	523	0.163 *	ITS:	0.000
	Left	1.00	1,600	14	0.009		
	Right	0.50	0	0	0.000	ICU:	0.436
Eastbound	Through	0.00	0	0	0.000		
	Left	0.50	1,600	1	0.001 *	LOS:	Α

Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	0.50	0	1	0.000	N/S 1:	0.160
Through	1.50	3,200	669	0.209 *	N/S 2:	0.212 *
Left	0.00	0	0	0.000	E/W 1:	0.046
Right	0.50	0	105	0.000	E/W 2:	0.077 *
Through	0.50	1,600	4	0.068 *		
Left	1.00	1,600	74	0.046	V/C Ratio:	0.289
Right	0.50	0	0	0.000	Loss Time:	0.100
Through	1.50	3,200	511	0.160	ITS:	0.000
Left	1.00	1,600	5	0.003 *		
Right	0.50	0	0	0.000	ICU:	0.389
Through	0.00	0	0	0.000		
Left	0.50	1,600	14	0.009 *	LOS:	Α
	Right Through Left Right Through Left Right Through Left Through Left Right Through	Right 0.50 Through 1.50 Left 0.00 Right 0.50 Through 0.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 0.50 Through 0.00	Right 0.50 0 Through 1.50 3,200 Left 0.00 0 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 0 Through 0.00 0	Right 0.50 0 1 Through 1.50 3,200 669 Left 0.00 0 0 Right 0.50 0 105 Through 0.50 1,600 4 Left 1.00 1,600 74 Right 0.50 0 0 Through 1.50 3,200 511 Left 1.00 1,600 5 Right 0.50 0 0 Through 0.50 0 0 Through 0.00 0 0	Right 0.50 0 1 0.000 Through 1.50 3,200 669 0.209 * Left 0.00 0 0 0.000 Right 0.50 0 105 0.000 Through 0.50 1,600 4 0.068 * Left 1.00 1,600 74 0.046 Right 0.50 0 0 0.000 Through 1.50 3,200 511 0.160 Left 1.00 1,600 5 0.003 * Right 0.50 0 0 0.000 Through 0.00 0 0.000	Right 0.50 0 1 0.000 N/S 1: Through 1.50 3,200 669 0.209 * N/S 2: Left 0.00 0 0.000 E/W 1: Right 0.50 0 105 0.000 E/W 2: Through 0.50 1,600 4 0.068 * Left V/C Ratio: Right 0.50 0 0 0.000 Loss Time: Through 1.50 3,200 511 0.160 ITS: Left 1.00 1,600 5 0.003 * Right 0.50 0 0 0.000 ICU: Through 0.00 0 0.000 ICU:

^{*} Critical Movement

Intersection Capacity Utilization Analysis

13. Central Avenue & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	9	0.000	N/S 1:	0.163
Southbound	Through	0.34	1,600	285	0.184 *	N/S 2:	0.199 *
	Left	0.33	0	0	0.000	E/W 1:	0.060
	Right	0.50	0	36	0.000	E/W 2:	0.122 *
Westbound	Through	1.00	3,200	258	0.122 *		
	Left	0.50	1,600	96	0.060	V/C Ratio:	0.321
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	237	0.163	ITS:	0.000
	Left	0.33	1,600	24	0.015 *		
	Right	0.00	0	0	0.000	ICU:	0.421
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	10	0.000	N/S 1:	0.193
Southbound	Through	0.34	1,600	308	0.199 *	N/S 2:	0.218
	Left	0.33	0	0	0.000	E/W 1:	0.079
	Right	0.50	0	71	0.000	E/W 2:	0.107
Westbound	Through	1.00	3,200	145	0.107 *		
	Left	0.50	1,600	127	0.079	V/C Ratio:	0.325
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	279	0.193	ITS:	0.000
	Left	0.33	1,600	30	0.019 *		
	Right	0.00	0	0	0.000	ICU:	0.425
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

14. Central Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	78	0.000	N/S 1:	0.184
Southbound	Through	1.50	3,200	466	0.170 *	N/S 2:	0.314
	Left	0.00	0	0	0.000	E/W 1:	0.136
	Right	1.00	1,600	323	0.202	E/W 2:	0.349
Westbound	Through	1.00	1,600	558	0.349 *		
	Left	1.00	1,600	218	0.136	V/C Ratio:	0.663
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	590	0.184	ITS:	0.000
	Left	1.00	1,600	231	0.144 *		
	Right	0.00	0	0	0.000	ICU:	0.763
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	197	0.000	N/S 1:	0.121
Southbound	Through	1.50	3,200	680	0.274 *	N/S 2:	0.452 *
	Left	0.00	0	0	0.000	E/W 1:	0.124
	Right	1.00	1,600	283	0.177	E/W 2:	0.312 *
Westbound	Through	1.00	1,600	499	0.312 *		
	Left	1.00	1,600	199	0.124	V/C Ratio:	0.764
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	387	0.121	ITS:	0.000
	Left	1.00	1,600	285	0.178 *		
	Right	0.00	0	0	0.000	ICU:	0.864
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

15. Central Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: ITS Percentage: 50 % 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	40	0.000	N/S 1:	0.105
Southbound	Through	1.50	3,200	258	0.093 *	N/S 2:	0.141 *
	Left	0.00	0	0	0.000	E/W 1:	0.069
	Right	0.50	0	190	0.000	E/W 2:	0.130 *
Westbound	Through	2.00	4,800	322	0.130 *		
	Left	0.50	1,600	111	0.069	V/C Ratio:	0.271
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	336	0.105	ITS:	0.000
	Left	1.00	1,600	77	0.048 *		
	Right	0.00	0	0	0.000	ICU:	0.371
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	52	0.000	N/S 1:	0.072
Southbound	Through	1.50	3,200	394	0.139 *	N/S 2:	0.174 *
	Left	0.00	0	0	0.000	E/W 1:	0.048
	Right	0.50	0	50	0.000	E/W 2:	0.064 *
Westbound	Through	2.00	4,800	180	0.064 *		
	Left	0.50	1,600	76	0.048	V/C Ratio:	0.238
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	229	0.072	ITS:	0.000
	Left	1.00	1,600	56	0.035 *		
	Right	0.00	0	0	0.000	ICU:	0.338
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

16. Central Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: ITS Percentage: 50 % 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	119	0.000	N/S 1:	0.145
Southbound	Through	1.50	3,200	477	0.186 *	N/S 2:	0.290
	Left	0.00	0	0	0.000	E/W 1:	0.180
	Right	0.50	0	469	0.000	E/W 2:	0.385
Westbound	Through	1.50	3,200	764	0.385 *		
	Left	1.00	1,600	288	0.180	V/C Ratio:	0.675
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	463	0.145	ITS:	0.000
	Left	1.00	1,600	167	0.104 *		
	Right	0.00	0	0	0.000	ICU:	0.775
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	191	0.000	N/S 1:	0.163
Southbound	Through	1.50	3,200	559	0.234 *	N/S 2:	0.382 3
	Left	0.00	0	0	0.000	E/W 1:	0.144
	Right	0.50	1,600	295	0.184 *	E/W 2:	0.184
Westbound	Through	1.50	1,600	214	0.134		
	Left	1.00	1,600	231	0.144	V/C Ratio:	0.566
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	521	0.163	ITS:	0.000
	Left	1.00	1,600	236	0.148 *		
	Right	0.00	0	0	0.000	ICU:	0.666
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

17. Evergreen Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	21	0.000	N/S 1:	0.299 *
Southbound	Through	1.00	3,200	378	0.142	N/S 2:	0.257
	Left	0.50	1,600	54	0.034 *	E/W 1:	0.069 *
	Right	0.33	0	12	0.000	E/W 2:	0.044
Westbound	Through	0.34	1,600	35	0.041		
	Left	0.33	1,600	18	0.011 *	V/C Ratio:	0.368
	Right	0.50	0	125	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	538	0.265 *	ITS:	0.000
	Left	0.50	1,600	184	0.115		
	Right	0.33	0	76	0.000	ICU:	0.468
Eastbound	Through	0.34	1,600	11	0.058 *		
	Left	0.33	1,600	5	0.003	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	14	0.000	N/S 1:	0.273 *
Southbound	Through	1.00	3,200	584	0.231	N/S 2:	0.263
	Left	0.50	1,600	140	0.088 *	E/W 1:	0.144 *
	Right	0.33	0	12	0.000	E/W 2:	0.029
Westbound	Through	0.34	1,600	7	0.026		
	Left	0.33	1,600	22	0.014 *	V/C Ratio:	0.417
	Right	0.50	0	62	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	478	0.185 *	ITS:	0.000
	Left	0.50	1,600	51	0.032		
	Right	0.33	0	139	0.000	ICU:	0.517
Eastbound	Through	0.34	1,600	65	0.130 *		
	Left	0.33	1,600	4	0.003	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

18. Evergreen Avenue & Magnolia Avenue

Overlapping Right Turn:

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	20	0.000	N/S 1:	0.301 *
Southbound	Through	0.34	1,600	250	0.243	N/S 2:	0.266
	Left	0.33	1,600	118	0.074 *	E/W 1:	0.125 *
	Right	0.00	0	0	0.000	E/W 2:	0.011
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.426
	Right	0.33	0	80	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	247	0.227 *	ITS:	0.000
	Left	0.33	1,600	36	0.023		
	Right	0.33	0	22	0.000	ICU:	0.526
Eastbound	Through	0.34	1,600	161	0.125 *		
	Left	0.33	1,600	17	0.011	LOS:	Α

Right Through Left Right	0.33 0.34 0.33 0.00	0 1,600 1,600	12 344 63	0.000 0.262 0.039 *	N/S 1: N/S 2:	0.278 * 0.270
Left	0.33	1,600	_			
		· · · · · · · · · · · · · · · · · · ·	63	0.039 *	E /\A/ 1.	0404
Right	0.00				E/W 1:	0.134 *
	0.00	0	0	0.000	E/W 2:	0.016
Through	0.00	0	0	0.000		
Left	0.00	0	0	0.000 *	V/C Ratio:	0.412
Right	0.33	0	87	0.000	Loss Time:	0.100
Through	0.34	1,600	283	0.239 *	ITS:	0.000
Left	0.33	1,600	13	0.008		
Right	0.33	0	23	0.000	ICU:	0.512
Through	0.34	1,600	167	0.134 *		
Left	0.33	1,600	25	0.016	LOS:	Α
	Left Right Through Left Right Through	Left 0.00 Right 0.33 Through 0.34 Left 0.33 Right 0.33 Through 0.34	Left 0.00 0 Right 0.33 0 Through 0.34 1,600 Left 0.33 1,600 Right 0.33 0 Through 0.34 1,600	Left 0.00 0 0 Right 0.33 0 87 Through 0.34 1,600 283 Left 0.33 1,600 13 Right 0.33 0 23 Through 0.34 1,600 167	Left 0.00 0 0 0.000 * Right 0.33 0 87 0.000 Through 0.34 1,600 283 0.239 * Left 0.33 1,600 13 0.008 Right 0.33 0 23 0.000 Through 0.34 1,600 167 0.134 *	Left 0.00 0 0.000 * V/C Ratio: Right 0.33 0 87 0.000 Loss Time: Through 0.34 1,600 283 0.239 * ITS: Left 0.33 1,600 13 0.008 Right 0.33 0 23 0.000 ICU: Through 0.34 1,600 167 0.134 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

19. Central Drive & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.345 *
Southbound	Through	2.00	3,200	439	0.137	N/S 2:	0.137
	Left	1.00	1,600	243	0.152 *	E/W 1:	0.218 *
	Right	0.00	0	0	0.000	E/W 2:	0.213
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.563
	Right	0.50	0	144	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	472	0.193 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	259	0.000	ICU:	0.663
Eastbound	Through	1.50	3,200	438	0.218 *		
	Left	1.00	1,600	340	0.213	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.413 *
Southbound	Through	2.00	3,200	583	0.182	N/S 2:	0.182
	Left	1.00	1,600	308	0.193 *	E/W 1:	0.311 *
	Right	0.00	0	0	0.000	E/W 2:	0.097
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.724
	Right	0.50	0	185	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	520	0.220 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	191	0.000	ICU:	0.824
Eastbound	Through	1.50	3,200	803	0.311 *		
	Left	1.00	1,600	155	0.097	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

20. Evergreen Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.193 *
Southbound	Through	2.00	3,200	319	0.100	N/S 2:	0.100
	Left	1.00	1,600	49	0.031 *	E/W 1:	0.052 *
	Right	0.00	0	0	0.000	E/W 2:	0.037
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.245
	Right	0.50	0	165	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	352	0.162 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	32	0.000	ICU:	0.345
Eastbound	Through	2.00	4,800	159	0.052 *		
	Left	0.50	1,600	59	0.037	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.233 *
Southbound	Through	2.00	3,200	320	0.100	N/S 2:	0.100
	Left	1.00	1,600	145	0.091 *	E/W 1:	0.162 *
	Right	0.00	0	0	0.000	E/W 2:	0.021
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.395
	Right	0.50	0	165	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	289	0.142 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	96	0.000	ICU:	0.495
Eastbound	Through	2.00	4,800	647	0.162 *		
	Left	0.50	1,600	34	0.021	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

21. Evergreen Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.340 *
Southbound	Through	2.00	3,200	450	0.141	N/S 2:	0.141
	Left	1.00	1,600	315	0.197 *	E/W 1:	0.123
	Right	0.00	0	0	0.000	E/W 2:	0.164 *
Westbound	Through	0.00	0	0	0.000 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.504
	Right	0.50	0	102	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	355	0.143 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	1.00	1,600	197	0.123	ICU:	0.604
Eastbound	Through	2.00	3,200	292	0.091		
	Left	1.00	1,600	263	0.164 *	LOS:	В

Right hrough Left Right hrough	0.00 2.00 1.00 0.00 0.00	0 3,200 1,600	0 465 315 0	0.000 0.145 0.197 * 0.000	N/S 1: N/S 2: E/W 1: E/W 2:	0.393 * 0.145 0.338 * 0.155
Left Right	1.00 0.00	1,600 0	315	0.197 *	E/W 1:	0.338 *
Right	0.00	0			,	
J		_	0	0.000	E/W 2:	0.155
hrough	0.00	0				0.133
		0	0	0.000		
Left	0.00	0	0	0.000 *	V/C Ratio:	0.731
Right	0.50	0	113	0.000	Loss Time:	0.100
hrough	1.50	3,200	515	0.196 *	ITS:	0.000
Left	0.00	0	0	0.000		
Right	1.00	1,600	182	0.114	ICU:	0.831
hrough	2.00	3,200	1,082	0.338 *		
	1.00	1,600	248	0.155	LOS:	D
	_	rough 2.00	rough 2.00 3,200	rough 2.00 3,200 1,082	rough 2.00 3,200 1,082 0.338 *	rough 2.00 3,200 1,082 0.338 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

22. Pomona Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement Right	Lanes 0.50	Capacity 0	Volume 60	V/C 0.000	ICU Analysis	
						N/S 1:	0.169
Southbound	Through	1.50	3,200	646	0.221 *	N/S 2:	0.241 *
	Left	1.00	1,600	38	0.024	E/W 1:	0.077
	Right	0.33	0	32	0.000	E/W 2:	0.083 *
Westbound	Through	0.34	1,600	47	0.058 *		
	Left	0.33	1,600	14	0.009	V/C Ratio:	0.324
	Right	0.50	0	12	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	452	0.145	ITS:	0.000
	Left	1.00	1,600	32	0.020 *		
	Right	0.33	0	40	0.000	ICU:	0.424
Eastbound	Through	0.34	1,600	28	0.068		
	Left	0.33	1,600	40	0.025 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.50	0	50	0.000	N/S 1:	0.230
Southbound	Through	1.50	3,200	745	0.248 *	N/S 2:	0.271 *
	Left	1.00	1,600	50	0.031	E/W 1:	0.163 *
	Right	0.33	0	30	0.000	E/W 2:	0.107
Westbound	Through	0.34	1,600	36	0.060		
	Left	0.33	1,600	30	0.019 *	V/C Ratio:	0.434
	Right	0.50	0	22	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	615	0.199	ITS:	0.000
	Left	1.00	1,600	37	0.023 *		
	Right	0.33	0	67	0.000	ICU:	0.534
Eastbound	Through	0.34	1,600	88	0.144 *		
	Left	0.33	1,600	75	0.047	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

Ν

Ν

10%

0%

23. Duarte Road & Fifth Avenue

Through Lane Capacity: 1600 vph North/South Split Phase:
Left-Turn Lane Capacity: 1600 vph East/West Split Phase:
Double-Left Penalty: 0 % Loss Time % per Cycle:
Right-Turn on Red: 50 % ITS Percentage:

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	37	0.000	N/S 1:	0.091
Southbound	Through	0.34	1,600	30	0.084 *	N/S 2:	0.106 *
	Left	0.33	1,600	68	0.043	E/W 1:	0.206
	Right	0.50	0	145	0.000	E/W 2:	0.449 *
Westbound	Through	1.50	3,200	1,251	0.436 *		
	Left	1.00	1,600	5	0.003	V/C Ratio:	0.555
	Right	0.33	0	6	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	35	0.048	ITS:	0.000
	Left	0.33	1,600	35	0.022 *		
	Right	0.50	0	31	0.000	ICU:	0.655
Eastbound	Through	1.50	3,200	619	0.203		
	Left	1.00	1,600	20	0.013 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	15	0.000	N/S 1:	0.086
Southbound	Through	0.34	1,600	21	0.091 *	N/S 2:	0.101 *
	Left	0.33	1,600	109	0.068	E/W 1:	0.428 *
	Right	0.50	0	66	0.000	E/W 2:	0.266
Westbound	Through	1.50	3,200	742	0.253		
	Left	1.00	1,600	3	0.002 *	V/C Ratio:	0.529
	Right	0.33	0	9	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.018	ITS:	0.000
	Left	0.33	1,600	16	0.010 *		
	Right	0.50	0	19	0.000	ICU:	0.629
Eastbound	Through	1.50	3,200	1,345	0.426 *		
	Left	1.00	1,600	21	0.013	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

24. Duarte Road & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	189	0.053	N/S 1:	0.208 *
Southbound	Through	1.00	1,600	172	0.108	N/S 2:	0.167
	Left	1.00	1,600	92	0.058 *	E/W 1:	0.169
	Right	0.50	0	176	0.000	E/W 2:	0.383 *
Westbound	Through	1.50	3,200	631	0.252 *		
	Left	1.00	1,600	25	0.016	V/C Ratio:	0.591
	Right	0.50	0	36	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	444	0.150 *	ITS:	0.000
	Left	1.00	1,600	94	0.059		
	Right	0.50	0	29	0.000	ICU:	0.691
Eastbound	Through	1.50	3,200	459	0.153		
	Left	1.00	1,600	209	0.131 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	246	0.088	N/S 1:	0.175
Southbound	Through	1.00	1,600	317	0.198 *	N/S 2:	0.222
	Left	1.00	1,600	149	0.093	E/W 1:	0.276
	Right	0.50	0	120	0.000	E/W 2:	0.328
Westbound	Through	1.50	3,200	505	0.195 *		
	Left	1.00	1,600	37	0.023	V/C Ratio:	0.550
	Right	0.50	0	34	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	229	0.082	ITS:	0.000
	Left	1.00	1,600	38	0.024 *		
	Right	0.50	0	47	0.000	ICU:	0.650
Eastbound	Through	1.50	3,200	764	0.253		
	Left	1.00	1,600	212	0.133 *	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

25. Duarte Road & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Υ 1600 vph Left-Turn Lane Capacity: East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	114	0.012	N/S 1:	0.107 *
Southbound	Through	0.50	1,600	4	0.104 *	N/S 2:	0.000
	Left	0.50	1,600	162	0.101	E/W 1:	0.144
	Right	0.50	0	179	0.000	E/W 2:	0.431 *
Westbound	Through	1.50	3,200	818	0.312 *		
	Left	1.00	1,600	8	0.005	V/C Ratio:	0.538
	Right	0.33	0	1	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	1	0.003 *	ITS:	0.000
	Left	0.33	1,600	3	0.002		
	Right	0.50	0	4	0.000	ICU:	0.638
Eastbound	Through	1.50	3,200	441	0.139		
	Left	1.00	1,600	190	0.119 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	173	0.034	N/S 1:	0.102 *
Southbound	Through	0.50	1,600	0	0.096 *	N/S 2:	0.000
	Left	0.50	1,600	153	0.096	E/W 1:	0.281
	Right	0.50	0	146	0.000	E/W 2:	0.358 *
Westbound	Through	1.50	3,200	525	0.210 *		
	Left	1.00	1,600	2	0.001	V/C Ratio:	0.460
	Right	0.33	0	3	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	2	0.006 *	ITS:	0.000
	Left	0.33	1,600	5	0.003		
	Right	0.50	0	2	0.000	ICU:	0.560
Eastbound	Through	1.50	3,200	894	0.280		
	Left	1.00	1,600	237	0.148 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

26. Duarte Road & Peck Road

Through Lane Capacity: 1600 vph North/South Split Phase: Ν 1600 vph Left-Turn Lane Capacity: East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: ITS Percentage: 50 % 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	11	0.000	N/S 1:	0.303 *
Southbound	Through	0.34	1,600	2	0.011	N/S 2:	0.248
	Left	0.33	1,600	4	0.003 *	E/W 1:	0.199 *
	Right	0.50	0	5	0.000	E/W 2:	0.170
Westbound	Through	1.50	3,200	534	0.168		
	Left	1.00	1,600	10	0.006 *	V/C Ratio:	0.502
	Right	0.33	0	97	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.300 *	ITS:	0.000
	Left	0.33	1,600	379	0.237		
	Right	0.50	0	98	0.000	ICU:	0.602
Eastbound	Through	1.50	3,200	518	0.193 *		
	Left	1.00	1,600	3	0.002	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	9	0.000	N/S 1:	0.168 *
Southbound	Through	0.34	1,600	9	0.016	N/S 2:	0.142
	Left	0.33	1,600	8	0.005 *	E/W 1:	0.295 *
	Right	0.50	0	6	0.000	E/W 2:	0.149
Westbound	Through	1.50	3,200	443	0.140		
	Left	1.00	1,600	22	0.014 *	V/C Ratio:	0.463
	Right	0.33	0	55	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	3	0.163 *	ITS:	0.000
	Left	0.33	1,600	202	0.126		
	Right	0.50	0	249	0.000	ICU:	0.563
Eastbound	Through	1.50	3,200	651	0.281 *		
	Left	1.00	1,600	14	0.009	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

27. Duarte Road & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν 1600 vph Left-Turn Lane Capacity: East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	153	0.000	N/S 1:	0.172
Southbound	Through	1.50	3,200	515	0.209 *	N/S 2:	0.289
	Left	1.00	1,600	31	0.019	E/W 1:	0.158
	Right	0.50	0	28	0.000	E/W 2:	0.172
Westbound	Through	1.50	3,200	281	0.097 *		
	Left	1.00	1,600	54	0.034	V/C Ratio:	0.461
	Right	0.50	0	47	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	444	0.153	ITS:	0.000
	Left	1.00	1,600	128	0.080 *		
	Right	0.50	0	113	0.000	ICU:	0.761
Eastbound	Through	1.50	3,200	283	0.124		
	Left	1.00	1,600	120	0.075 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	161	0.000	N/S 1:	0.175
Southbound	Through	1.50	3,200	608	0.240 *	N/S 2:	0.298 *
	Left	1.00	1,600	43	0.027	E/W 1:	0.268 *
	Right	0.50	0	28	0.000	E/W 2:	0.194
Westbound	Through	1.50	3,200	308	0.105		
	Left	1.00	1,600	65	0.041 *	V/C Ratio:	0.566
	Right	0.50	0	45	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	427	0.148	ITS:	0.000
	Left	1.00	1,600	92	0.058 *		
	Right	0.50	0	263	0.000	ICU:	0.866
Eastbound	Through	1.50	3,200	463	0.227 *		
	Left	1.00	1,600	143	0.089	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

28. Duarte Road & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	80	0.000	N/S 1:	0.161 *
Southbound	Through	1.50	3,200	152	0.073	N/S 2:	0.118
	Left	1.00	1,600	23	0.014 *	E/W 1:	0.170
	Right	0.50	0	36	0.000	E/W 2:	0.243 *
Westbound	Through	0.50	1,600	234	0.169 *		
	Left	1.00	1,600	42	0.026	V/C Ratio:	0.404
	Right	0.50	0	60	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	411	0.147 *	ITS:	0.000
	Left	1.00	1,600	72	0.045		
	Right	0.50	0	23	0.000	ICU:	0.704
Eastbound	Through	0.50	1,600	208	0.144		
	Left	1.00	1,600	119	0.074 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	40	0.000	N/S 1:	0.190 *
Southbound	Through	1.50	3,200	302	0.107	N/S 2:	0.131
	Left	1.00	1,600	77	0.048 *	E/W 1:	0.181
	Right	0.50	0	33	0.000	E/W 2:	0.228 '
Westbound	Through	0.50	1,600	213	0.154 *		
	Left	1.00	1,600	59	0.037	V/C Ratio:	0.418
	Right	0.50	0	124	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	330	0.142 *	ITS:	0.000
	Left	1.00	1,600	39	0.024		
	Right	0.50	0	23	0.000	ICU:	0.718
Eastbound	Through	0.50	1,600	208	0.144		
	Left	1.00	1,600	119	0.074 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

29. Duarte Road & Mountain Avenue

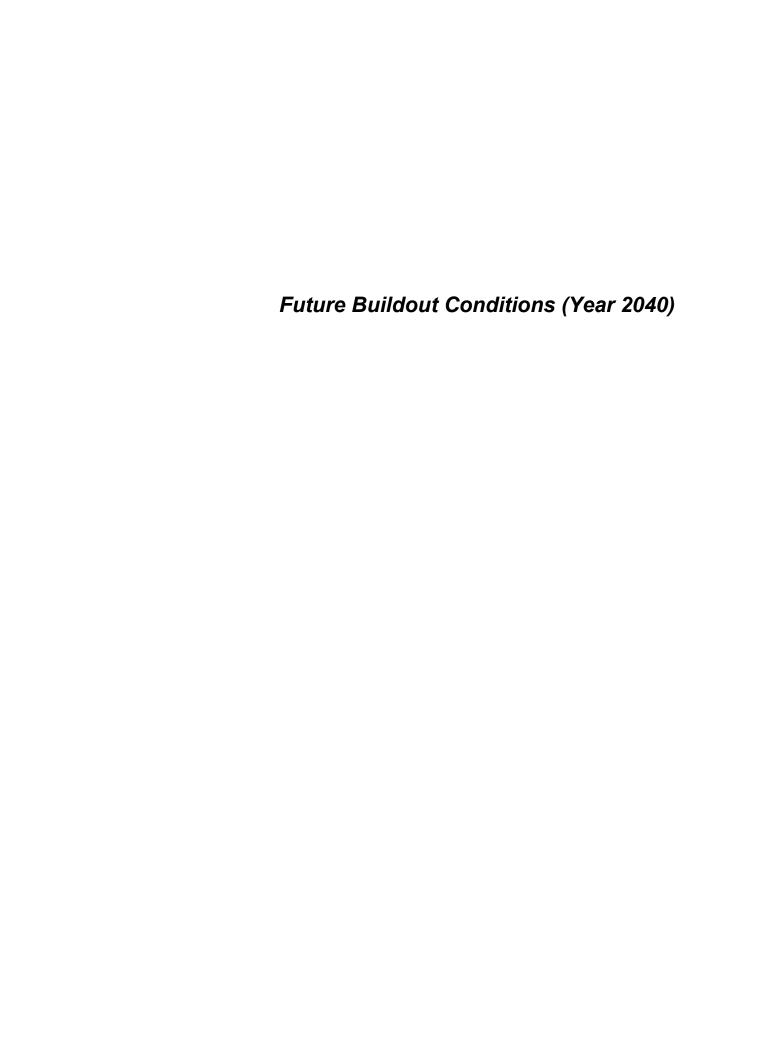
Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	141	0.043	N/S 1:	0.161 *
Southbound	Through	1.00	1,600	148	0.093	N/S 2:	0.109
	Left	1.00	1,600	81	0.051 *	E/W 1:	0.114
	Right	1.00	1,600	143	0.064	E/W 2:	0.158 *
Westbound	Through	2.00	3,200	213	0.067 *		
	Left	1.00	1,600	74	0.046	V/C Ratio:	0.319
	Right	1.00	1,600	129	0.058	Loss Time:	0.300
Northbound	Through	1.00	1,600	176	0.110 *	ITS:	0.000
	Left	1.00	1,600	26	0.016		
	Right	0.50	0	26	0.000	ICU:	0.619
Eastbound	Through	1.50	3,200	190	0.068		
	Left	1.00	1,600	146	0.091 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	194	0.066	N/S 1:	0.155
Southbound	Through	1.00	1,600	283	0.177 *	N/S 2:	0.192
	Left	1.00	1,600	100	0.063	E/W 1:	0.195
	Right	1.00	1,600	164	0.071	E/W 2:	0.182
Westbound	Through	2.00	3,200	167	0.052		
	Left	1.00	1,600	46	0.029 *	V/C Ratio:	0.387
	Right	1.00	1,600	97	0.046	Loss Time:	0.300
Northbound	Through	1.00	1,600	147	0.092	ITS:	0.000
	Left	1.00	1,600	24	0.015 *		
	Right	0.50	0	101	0.000	ICU:	0.687
Eastbound	Through	1.50	3,200	431	0.166 *		
	Left	1.00	1,600	177	0.111	LOS:	В

^{*} Critical Movement



Intersection Capacity Utilization Analysis

1. Huntington Drive & Fifth Avenue

Overlapping Right Turn:

Through Lane Capacity: 1600 vph North/South Split Phase: Υ Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	66	0.000	N/S 1:	0.196 *
Southbound	Through	0.50	1,600	34	0.063	N/S 2:	0.000
	Left	1.00	1,600	180	0.113 *	E/W 1:	0.373
	Right	1.00	1,600	217	0.079	E/W 2:	0.495 3
Westbound	Through	2.00	3,200	1,471	0.460 *		
	Left	1.00	1,600	224	0.140	V/C Ratio:	0.691
	Right	0.50	0	106	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	26	0.083 *	ITS:	0.000
	Left	1.00	1,600	45	0.028		
	Right	0.50	0	68	0.000	ICU:	0.791
Eastbound	Through	1.50	3,200	676	0.233		
	Left	1.00	1,600	56	0.035 *	LOS:	С

Right Through	0.50	0				
Through		U	92	0.000	N/S 1:	0.357 *
iiiiougii	0.50	1,600	30	0.076	N/S 2:	0.000
Left	1.00	1,600	209	0.131 *	E/W 1:	0.618 *
Right	1.00	1,600	192	0.055	E/W 2:	0.336
Through	2.00	3,200	911	0.285		
Left	1.00	1,600	140	0.088 *	V/C Ratio:	0.975
Right	0.50	0	300	0.000	Loss Time:	0.100
Through	0.50	1,600	61	0.226 *	ITS:	0.000
Left	1.00	1,600	92	0.058		
Right	0.50	0	37	0.000	ICU:	1.075
Through	1.50	3,200	1,658	0.530 *		
Left	1.00	1,600	81	0.051	LOS:	F
	Right Through Left Right Through Left Right Through	Right 1.00 Through 2.00 Left 1.00 Right 0.50 Through 0.50 Left 1.00 Right 0.50 Through 1.50	Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200	Right 1.00 1,600 192 Through 2.00 3,200 911 Left 1.00 1,600 140 Right 0.50 0 300 Through 0.50 1,600 61 Left 1.00 1,600 92 Right 0.50 0 37 Through 1.50 3,200 1,658	Right 1.00 1,600 192 0.055 Through 2.00 3,200 911 0.285 Left 1.00 1,600 140 0.088 * Right 0.50 0 300 0.000 Through 0.50 1,600 61 0.226 * Left 1.00 1,600 92 0.058 Right 0.50 0 37 0.000 Through 1.50 3,200 1,658 0.530 *	Right 1.00 1,600 192 0.055 E/W 2: Through 2.00 3,200 911 0.285 Left 1.00 1,600 140 0.088 * V/C Ratio: Right 0.50 0 300 0.000 Loss Time: Through 0.50 1,600 61 0.226 * ITS: Left 1.00 1,600 92 0.058 Right 0.50 0 37 0.000 ICU: Through 1.50 3,200 1,658 0.530 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

2. Huntington Drive & I-210 EB Ramps/ Driveway

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	234	0.146 *	N/S 1:	0.142
Southbound	Through	0.50	80	10	0.125	N/S 2:	0.172 '
	Left	1.50	3,120	390	0.125	E/W 1:	0.202
	Right	1.00	1,600	148	0.030	E/W 2:	0.518 *
Westbound	Through	2.00	3,200	1,659	0.518 *		
	Left	1.00	1,600	9	0.006	V/C Ratio:	0.690
	Right	1.00	1,600	32	0.017	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	1.00	1,600	41	0.026 *		
	Right	0.50	0	12	0.000	ICU:	0.790
Eastbound	Through	2.50	4,800	927	0.196		
	Left	0.00	0	0	0.000 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	127	0.079	N/S 1:	0.218
Southbound	Through	0.50	19	4	0.214 *	N/S 2:	0.229
	Left	1.50	3,181	680	0.214	E/W 1:	0.402
	Right	1.00	1,600	161	0.000	E/W 2:	0.405
Westbound	Through	2.00	3,200	1,293	0.404 *		
	Left	1.00	1,600	22	0.014	V/C Ratio:	0.634
	Right	1.00	1,600	18	0.004	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000	ITS:	0.000
	Left	1.00	1,600	24	0.015 *		
	Right	0.50	0	30	0.000	ICU:	0.734
Eastbound	Through	2.50	4,800	1,829	0.388		
	Left	0.00	1,600	1	0.001 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

3. Huntington Drive & I-210 WB Ramps

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.50	2,400	195	0.062	N/S 1:	0.081 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.062
	Left	0.50	800	65	0.081 *	E/W 1:	0.167
	Right	1.00	1,600	799	0.459	E/W 2:	0.551 *
Westbound	Through	2.00	3,200	1,638	0.512 *		
	Left	0.00	1,600	1	0.001	V/C Ratio:	0.632
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.732
Eastbound	Through	3.00	4,800	795	0.166		
	Left	1.00	1,600	63	0.039 *	LOS:	С

Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	1.50	2,074	418	0.158	N/S 1:	0.202 *
Through	0.00	0	0	0.000	N/S 2:	0.158
Left	0.50	1,126	227	0.202 *	E/W 1:	0.371
Right	1.00	1,600	852	0.432	E/W 2:	0.644 *
Through	2.00	3,200	1,782	0.557 *		
Left	0.00	1,600	1	0.001	V/C Ratio:	0.846
Right	0.00	0	0	0.000	Loss Time:	0.100
Through	0.00	0	0	0.000 *	ITS:	0.000
Left	0.00	0	0	0.000		
Right	0.00	0	0	0.000	ICU:	0.946
Through	3.00	4,800	1,777	0.370		
Left	1.00	1,600	139	0.087 *	LOS:	E
	Right Through Left Right Through Left Right Through Left Through Left Right Through	Right 1.50 Through 0.00 Left 0.50 Right 1.00 Through 2.00 Left 0.00 Through 0.00 Left 0.00 Right 0.00 Through 3.00	Right 1.50 2,074 Through 0.00 0 Left 0.50 1,126 Right 1.00 1,600 Through 2.00 3,200 Left 0.00 1,600 Right 0.00 0 Through 0.00 0 Left 0.00 0 Right 0.00 0 Through 3.00 4,800	Right 1.50 2,074 418 Through 0.00 0 0 Left 0.50 1,126 227 Right 1.00 1,600 852 Through 2.00 3,200 1,782 Left 0.00 1,600 1 Right 0.00 0 0 Through 0.00 0 0 Left 0.00 0 0 Right 0.00 0 0 Through 3.00 4,800 1,777	Right 1.50 2,074 418 0.158 Through 0.00 0 0 0.000 Left 0.50 1,126 227 0.202 * Right 1.00 1,600 852 0.432 Through 2.00 3,200 1,782 0.557 * Left 0.00 1,600 1 0.001 Right 0.00 0 0 0.000 Through 0.00 0 0 0.000 Right 0.00 0 0 0.000 Right 0.00 0 0 0.000 Through 3.00 4,800 1,777 0.370	Right 1.50 2,074 418 0.158 N/S 1: Through 0.00 0 0 0.000 N/S 2: Left 0.50 1,126 227 0.202 * E/W 1: Right 1.00 1,600 852 0.432 E/W 2: Through 2.00 3,200 1,782 0.557 * Left 0.00 1,600 1 0.001 V/C Ratio: Right 0.00 0 0 0.000 Loss Time: Through 0.00 0 0 0.000 ITS: Left 0.00 0 0 0.000 ICU: Through 3.00 4,800 1,777 0.370 ICU:

^{*} Critical Movement

Intersection Capacity Utilization Analysis

4. Huntington Drive & Monterey Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	145	0.000	N/S 1:	0.173
Southbound	Through	0.50	1,600	70	0.134 *	N/S 2:	0.319 *
	Left	1.00	1,600	51	0.032	E/W 1:	0.237
	Right	1.00	1,600	76	0.032	E/W 2:	0.612 *
Westbound	Through	2.00	3,200	1,902	0.594 *		
	Left	1.00	1,600	64	0.040	V/C Ratio:	0.931
	Right	0.50	0	45	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	180	0.141	ITS:	0.000
	Left	1.00	1,600	296	0.185 *		
	Right	1.00	1,600	121	0.000	ICU:	1.031
Eastbound	Through	2.00	3,200	630	0.197		
	Left	1.00	1,600	28	0.018 *	LOS:	F

Diaba						ysis
Right	0.50	0	100	0.000	N/S 1:	0.227
Through	0.50	1,600	139	0.149 *	N/S 2:	0.414 *
Left	1.00	1,600	81	0.051	E/W 1:	0.600 *
Right	1.00	1,600	80	0.025	E/W 2:	0.410
Through	2.00	3,200	1,175	0.367		
Left	1.00	1,600	198	0.124 *	V/C Ratio:	1.014
Right	0.50	0	194	0.000	Loss Time:	0.100
Through	0.50	1,600	87	0.176	ITS:	0.000
Left	1.00	1,600	424	0.265 *		
Right	1.00	1,600	562	0.219	ICU:	1.114
Through	2.00	3,200	1,522	0.476 *		
Left	1.00	1,600	69	0.043	LOS:	F
	Left Right Through Left Right Through Left Right Through	Left 1.00 Right 1.00 Through 2.00 Left 1.00 Right 0.50 Through 0.50 Left 1.00 Right 1.00 Through 2.00	Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200	Left 1.00 1,600 81 Right 1.00 1,600 80 Through 2.00 3,200 1,175 Left 1.00 1,600 198 Right 0.50 0 194 Through 0.50 1,600 87 Left 1.00 1,600 424 Right 1.00 1,600 562 Through 2.00 3,200 1,522	Left 1.00 1,600 81 0.051 Right 1.00 1,600 80 0.025 Through 2.00 3,200 1,175 0.367 Left 1.00 1,600 198 0.124 * Right 0.50 0 194 0.000 Through 0.50 1,600 87 0.176 Left 1.00 1,600 424 0.265 * Right 1.00 1,600 562 0.219 Through 2.00 3,200 1,522 0.476 *	Left 1.00 1,600 81 0.051 E/W 1: Right 1.00 1,600 80 0.025 E/W 2: Through 2.00 3,200 1,175 0.367 Left 1.00 1,600 198 0.124 * V/C Ratio: Right 0.50 0 194 0.000 Loss Time: Through 0.50 1,600 87 0.176 ITS: Left 1.00 1,600 424 0.265 * ICU: Right 1.00 1,600 562 0.219 ICU: Through 2.00 3,200 1,522 0.476 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

5. Huntington Drive & Mayflower Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	46	0.000	N/S 1:	0.296 *
Southbound	Through	1.50	3,200	268	0.098	N/S 2:	0.270
	Left	1.00	1,600	91	0.057 *	E/W 1:	0.233
	Right	0.50	0	42	0.000	E/W 2:	0.453 *
Westbound	Through	1.50	3,200	1,330	0.429 *		
	Left	1.00	1,600	56	0.035	V/C Ratio:	0.749
	Right	0.50	0	65	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	318	0.239 *	ITS:	0.000
	Left	2.00	3,200	551	0.172		
	Right	0.50	0	138	0.000	ICU:	0.849
Eastbound	Through	1.50	3,200	495	0.198		
	Left	1.00	1,600	39	0.024 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	81	0.000	N/S 1:	0.304 *
Southbound	Through	1.50	3,200	297	0.118	N/S 2:	0.252
	Left	1.00	1,600	117	0.073 *	E/W 1:	0.593 *
	Right	0.50	0	47	0.000	E/W 2:	0.349
Westbound	Through	1.50	3,200	909	0.299		
	Left	1.00	1,600	164	0.103 *	V/C Ratio:	0.897
	Right	0.50	0	136	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	234	0.231 *	ITS:	0.000
	Left	2.00	3,200	429	0.134		
	Right	0.50	0	283	0.000	ICU:	0.997
Eastbound	Through	1.50	3,200	1,286	0.490 *		
	Left	1.00	1,600	80	0.050	LOS:	Ε

^{*} Critical Movement

Intersection Capacity Utilization Analysis

6. Huntington Drive & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	0.50	0	40	0.000	N/S 1:	0.292 *
Through	0.50	1,600	249	0.181	N/S 2:	0.275
Left	1.00	1,600	69	0.043 *	E/W 1:	0.219
Right	0.50	0	100	0.000	E/W 2:	0.496 *
Through	1.50	3,200	1,300	0.438 *		
Left	1.00	1,600	47	0.029	V/C Ratio:	0.788
Right	0.50	0	77	0.000	Loss Time:	0.100
Through	0.50	1,600	322	0.249 *	ITS:	0.000
Left	1.00	1,600	151	0.094		
Right	0.50	0	57	0.000	ICU:	0.888
Through	1.50	3,200	550	0.190		
Left	1.00	1,600	93	0.058 *	LOS:	D
	Right Through Left Right Through Left Right Through Left Right Through Left Right	Right 0.50 Through 0.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Left 1.00 Right 0.50 Through 1.50 Through 1.50	Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200	Right 0.50 0 40 Through 0.50 1,600 249 Left 1.00 1,600 69 Right 0.50 0 100 Through 1.50 3,200 1,300 Left 1.00 1,600 47 Right 0.50 0 77 Through 0.50 1,600 322 Left 1.00 1,600 151 Right 0.50 0 57 Through 1.50 3,200 550	Right 0.50 0 40 0.000 Through 0.50 1,600 249 0.181 Left 1.00 1,600 69 0.043 * Right 0.50 0 100 0.000 Through 1.50 3,200 1,300 0.438 * Left 1.00 1,600 47 0.029 Right 0.50 0 77 0.000 Through 0.50 1,600 322 0.249 * Left 1.00 1,600 151 0.094 Right 0.50 0 57 0.000 Through 1.50 3,200 550 0.190	Right 0.50 0 40 0.000 N/S 1: Through 0.50 1,600 249 0.181 N/S 2: Left 1.00 1,600 69 0.043 * E/W 1: Right 0.50 0 100 0.000 E/W 2: Through 1.50 3,200 1,300 0.438 * Left 1.00 1,600 47 0.029 V/C Ratio: Right 0.50 0 77 0.000 Loss Time: Through 0.50 1,600 322 0.249 * ITS: Left 1.00 1,600 151 0.094 Right 0.50 0 57 0.000 ICU: Through 1.50 3,200 550 0.190

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	64	0.000	N/S 1:	0.297
Southbound	Through	0.50	1,600	293	0.223 *	N/S 2:	0.326
	Left	1.00	1,600	117	0.073	E/W 1:	0.555
	Right	0.50	0	43	0.000	E/W 2:	0.390
Westbound	Through	1.50	3,200	1,025	0.334		
	Left	1.00	1,600	141	0.088 *	V/C Ratio:	0.881
	Right	0.50	0	102	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	257	0.224	ITS:	0.000
	Left	1.00	1,600	165	0.103 *		
	Right	0.50	0	165	0.000	ICU:	0.981
Eastbound	Through	1.50	3,200	1,330	0.467 *		
	Left	1.00	1,600	90	0.056	LOS:	Ε

^{*} Critical Movement

Intersection Capacity Utilization Analysis

7. Huntington Drive & Primrose Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	37	0.000	N/S 1:	0.031
Southbound	Through	0.34	1,600	0	0.036 *	N/S 2:	0.037 *
	Left	0.33	1,600	20	0.013	E/W 1:	0.175
	Right	0.50	0	48	0.000	E/W 2:	0.442 *
Westbound	Through	1.50	3,200	1,195	0.388 *		
	Left	1.00	1,600	19	0.012	V/C Ratio:	0.479
	Right	0.33	0	20	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	8	0.018	ITS:	0.000
	Left	0.33	1,600	1	0.001 *		
	Right	0.50	0	6	0.000	ICU:	0.579
Eastbound	Through	1.50	3,200	516	0.163		
	Left	1.00	1,600	86	0.054 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	113	0.000	N/S 1:	0.029
Southbound	Through	0.34	1,600	9	0.084 *	N/S 2:	0.088
	Left	0.33	1,600	13	0.008	E/W 1:	0.461
	Right	0.50	0	55	0.000	E/W 2:	0.382
Westbound	Through	1.50	3,200	1,013	0.334		
	Left	1.00	1,600	26	0.016 *	V/C Ratio:	0.549
	Right	0.33	0	23	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.021	ITS:	0.000
	Left	0.33	1,600	6	0.004 *		
	Right	0.50	0	17	0.000	ICU:	0.649
Eastbound	Through	1.50	3,200	1,408	0.445 *		
	Left	1.00	1,600	76	0.048	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

8. Huntington Drive & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	62	0.000	N/S 1:	0.276
Southbound	Through	1.50	3,200	360	0.132 *	N/S 2:	0.299 *
	Left	1.00	1,600	49	0.031	E/W 1:	0.227
	Right	0.50	0	80	0.000	E/W 2:	0.479 *
Westbound	Through	1.50	3,200	1,331	0.441 *		
	Left	1.00	1,600	126	0.079	V/C Ratio:	0.778
	Right	0.50	0	135	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	648	0.245	ITS:	0.000
	Left	1.00	1,600	267	0.167 *		
	Right	1.00	1,600	156	0.014	ICU:	0.878
Eastbound	Through	2.00	3,200	474	0.148		
	Left	1.00	1,600	61	0.038 *	LOS:	D

			Volume	V/C	ICU Anal	ysis
Right	0.50	0	103	0.000	N/S 1:	0.286
Through	1.50	3,200	642	0.233 *	N/S 2:	0.361 *
Left	1.00	1,600	140	0.088	E/W 1:	0.441 *
Right	0.50	0	65	0.000	E/W 2:	0.362
Through	1.50	3,200	826	0.278		
Left	1.00	1,600	167	0.104 *	V/C Ratio:	0.802
Right	0.50	0	164	0.000	Loss Time:	0.100
Through	1.50	3,200	468	0.198	ITS:	0.000
Left	1.00	1,600	205	0.128 *		
Right	1.00	1,600	228	0.078	ICU:	0.902
Through	2.00	3,200	1,077	0.337 *		
Left	1.00	1,600	134	0.084	LOS:	Ε
	Left Right Through Left Right Through Left Right Through Left Right Through	Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 1.00 Through 2.00	Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200	Left 1.00 1,600 140 Right 0.50 0 65 Through 1.50 3,200 826 Left 1.00 1,600 167 Right 0.50 0 164 Through 1.50 3,200 468 Left 1.00 1,600 205 Right 1.00 1,600 228 Through 2.00 3,200 1,077	Left 1.00 1,600 140 0.088 Right 0.50 0 65 0.000 Through 1.50 3,200 826 0.278 Left 1.00 1,600 167 0.104 * Right 0.50 0 164 0.000 Through 1.50 3,200 468 0.198 Left 1.00 1,600 205 0.128 * Right 1.00 1,600 228 0.078 Through 2.00 3,200 1,077 0.337 *	Left 1.00 1,600 140 0.088 E/W 1: Right 0.50 0 65 0.000 E/W 2: Through 1.50 3,200 826 0.278 V/C Ratio: Left 1.00 1,600 167 0.104 * V/C Ratio: Right 0.50 0 164 0.000 Loss Time: Through 1.50 3,200 468 0.198 ITS: Left 1.00 1,600 205 0.128 * Right 1.00 1,600 228 0.078 ICU: Through 2.00 3,200 1,077 0.337 *

^{*} Critical Movement

Intersection Capacity Utilization Analysis

9. Huntington Drive & Ivy Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	30	0.000	N/S 1:	0.020
Southbound	Through	0.34	1,600	6	0.028 *	N/S 2:	0.031 *
	Left	0.33	1,600	8	0.005	E/W 1:	0.169
	Right	0.50	0	66	0.000	E/W 2:	0.403 *
Westbound	Through	1.50	3,200	1,133	0.375 *		
	Left	1.00	1,600	22	0.014	V/C Ratio:	0.434
	Right	0.33	0	11	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	8	0.015	ITS:	0.000
	Left	0.33	1,600	5	0.003 *		
	Right	0.50	0	14	0.000	ICU:	0.534
Eastbound	Through	1.50	3,200	481	0.155		
	Left	1.00	1,600	45	0.028 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	112	0.000	N/S 1:	0.042
Southbound	Through	0.34	1,600	5	0.099 *	N/S 2:	0.101 *
	Left	0.33	1,600	41	0.026	E/W 1:	0.482 *
	Right	0.50	0	45	0.000	E/W 2:	0.345
Westbound	Through	1.50	3,200	911	0.299		
	Left	1.00	1,600	34	0.021 *	V/C Ratio:	0.583
	Right	0.33	0	16	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	6	0.016	ITS:	0.000
	Left	0.33	1,600	3	0.002 *		
	Right	0.50	0	14	0.000	ICU:	0.683
Eastbound	Through	1.50	3,200	1,460	0.461 *		
	Left	1.00	1,600	74	0.046	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

10. Huntington Drive & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	67	0.000	N/S 1:	0.144
Southbound	Through	0.50	1,600	254	0.201 *	N/S 2:	0.284 *
	Left	1.00	1,600	36	0.023	E/W 1:	0.220
	Right	0.50	0	34	0.000	E/W 2:	0.528 *
Westbound	Through	1.50	3,200	1,524	0.487 *		
	Left	1.00	1,600	51	0.032	V/C Ratio:	0.812
	Right	0.50	0	103	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	284	0.121	ITS:	0.000
	Left	1.00	1,600	132	0.083 *		
	Right	0.50	0	44	0.000	ICU:	0.912
Eastbound	Through	1.50	3,200	556	0.188		
	Left	1.00	1,600	66	0.041 *	LOS:	Е

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	41	0.000	N/S 1:	0.137
Southbound	Through	0.50	1,600	228	0.168 *	N/S 2:	0.194 *
	Left	1.00	1,600	61	0.038	E/W 1:	0.527 *
	Right	0.50	0	25	0.000	E/W 2:	0.333
Westbound	Through	1.50	3,200	877	0.282		
	Left	1.00	1,600	95	0.059 *	V/C Ratio:	0.721
	Right	0.50	0	95	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	223	0.099	ITS:	0.000
	Left	1.00	1,600	42	0.026 *		
	Right	0.50	0	103	0.000	ICU:	0.821
Eastbound	Through	1.50	3,200	1,396	0.468 *		
	Left	1.00	1,600	81	0.051	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

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11. Huntington Drive & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	60	0.000	N/S 1:	0.315
Southbound	Through	1.50	3,200	408	0.146 *	N/S 2:	0.401
	Left	1.00	1,600	111	0.069	E/W 1:	0.224
	Right	0.50	0	249	0.000	E/W 2:	0.469
Westbound	Through	1.50	3,200	977	0.383 *		
	Left	1.00	1,600	90	0.056	V/C Ratio:	0.870
	Right	0.50	0	110	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	677	0.246	ITS:	0.000
	Left	1.00	1,600	408	0.255 *		
	Right	0.50	0	135	0.000	ICU:	0.970
Eastbound	Through	1.50	3,200	401	0.168		
	Left	1.00	1,600	137	0.086 *	LOS:	Ε

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	75	0.000	N/S 1:	0.377 *
Southbound	Through	1.50	3,200	575	0.203	N/S 2:	0.355
	Left	1.00	1,600	256	0.160 *	E/W 1:	0.607 *
	Right	0.50	0	79	0.000	E/W 2:	0.273
Westbound	Through	1.50	3,200	686	0.239		
	Left	1.00	1,600	132	0.083 *	V/C Ratio:	0.984
	Right	0.50	0	220	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	473	0.217 *	ITS:	0.000
	Left	1.00	1,600	243	0.152		
	Right	0.50	0	310	0.000	ICU:	1.084
Eastbound	Through	1.50	3,200	1,366	0.524 *		
	Left	1.00	1,600	55	0.034	LOS:	F

^{*} Critical Movement

Intersection Capacity Utilization Analysis

12. Central Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	1	0.000	N/S 1:	0.200 *
Southbound	Through	1.50	3,200	490	0.153	N/S 2:	0.162
	Left	0.00	0	0	0.000 *	E/W 1:	0.084
	Right	0.50	0	339	0.000	E/W 2:	0.232 *
Westbound	Through	0.50	1,600	31	0.231 *		
	Left	1.00	1,600	135	0.084	V/C Ratio:	0.432
	Right	0.50	0	0	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	640	0.200 *	ITS:	0.000
	Left	1.00	1,600	15	0.009		
	Right	0.50	0	0	0.000	ICU:	0.532
Eastbound	Through	0.00	0	0	0.000		
	Left	0.50	1,600	1	0.001 *	LOS:	Α

Approach	Movement	t Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.50	0	1	0.000	N/S 1:	0.206
Southbound	Through	1.50	3,200	869	0.272 *	N/S 2:	0.276 *
	Left	0.00	0	0	0.000	E/W 1:	0.105
	Right	0.50	0	184	0.000	E/W 2:	0.127 *
Westbound	Through	0.50	1,600	4	0.118 *		
	Left	1.00	1,600	168	0.105	V/C Ratio:	0.403
	Right	0.50	0	0	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	660	0.206	ITS:	0.000
	Left	1.00	1,600	6	0.004 *		
	Right	0.50	0	0	0.000	ICU:	0.503
Eastbound	Through	0.00	0	0	0.000		
	Left	0.50	1,600	15	0.009 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

13. Central Avenue & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	10	0.000	N/S 1:	0.336 *
Southbound	Through	0.34	1,600	368	0.236	N/S 2:	0.289
	Left	0.33	0	0	0.000 *	E/W 1:	0.066
	Right	0.50	0	40	0.000	E/W 2:	0.145 *
Westbound	Through	1.00	3,200	317	0.145 *		
	Left	0.50	1,600	106	0.066	V/C Ratio:	0.481
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	454	0.336 *	ITS:	0.000
	Left	0.33	1,600	84	0.053		
	Right	0.00	0	0	0.000	ICU:	0.581
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement Lanes Cap	Capacity	Volume	V/C	ICU Analysis		
	Right	0.33	0	11	0.000	N/S 1:	0.344
Southbound	Through	0.34	1,600	539	0.344 *	N/S 2:	0.388 3
	Left	0.33	0	0	0.000	E/W 1:	0.088
	Right	0.50	0	78	0.000	E/W 2:	0.154 *
Westbound	Through	1.00	3,200	276	0.154 *		
	Left	0.50	1,600	140	0.088	V/C Ratio:	0.542
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	480	0.344	ITS:	0.000
	Left	0.33	1,600	71	0.044 *		
	Right	0.00	0	0	0.000	ICU:	0.642
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

14. Central Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	129	0.000	N/S 1:	0.236
Southbound	Through	1.50	3,200	578	0.221 *	N/S 2:	0.473 *
	Left	0.00	0	0	0.000	E/W 1:	0.184
	Right	1.00	1,600	382	0.239	E/W 2:	0.410 *
Westbound	Through	1.00	1,600	656	0.410 *		
	Left	1.00	1,600	294	0.184	V/C Ratio:	0.883
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	755	0.236	ITS:	0.000
	Left	1.00	1,600	403	0.252 *		
	Right	0.00	0	0	0.000	ICU:	0.983
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Ε

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	245	0.000	N/S 1:	0.168
Southbound	Through	1.50	3,200	878	0.351 *	N/S 2:	0.628 *
	Left	0.00	0	0	0.000	E/W 1:	0.234
	Right	1.00	1,600	342	0.214	E/W 2:	0.438 *
Westbound	Through	1.00	1,600	701	0.438 *		
	Left	1.00	1,600	375	0.234	V/C Ratio:	1.066
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	536	0.168	ITS:	0.000
	Left	1.00	1,600	443	0.277 *		
	Right	0.00	0	0	0.000	ICU:	1.166
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	F

^{*} Critical Movement

Intersection Capacity Utilization Analysis

15. Central Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	44	0.000	N/S 1:	0.134
Southbound	Through	1.50	3,200	304	0.109 *	N/S 2:	0.162 *
	Left	0.00	0	0	0.000	E/W 1:	0.078
	Right	0.50	0	209	0.000	E/W 2:	0.145 *
Westbound	Through	2.00	4,800	363	0.145 *		
	Left	0.50	1,600	125	0.078	V/C Ratio:	0.307
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	428	0.134	ITS:	0.000
	Left	1.00	1,600	85	0.053 *		
	Right	0.00	0	0	0.000	ICU:	0.407
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	57	0.000	N/S 1:	0.088
Southbound	Through	1.50	3,200	508	0.177 *	N/S 2:	0.216
	Left	0.00	0	0	0.000	E/W 1:	0.058
	Right	0.50	0	55	0.000	E/W 2:	0.080
Westbound	Through	2.00	4,800	236	0.080 *		
	Left	0.50	1,600	93	0.058	V/C Ratio:	0.296
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	281	0.088	ITS:	0.000
	Left	1.00	1,600	62	0.039 *		
	Right	0.00	0	0	0.000	ICU:	0.396
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

16. Central Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	137	0.000	N/S 1:	0.171
Southbound	Through	1.50	3,200	530	0.208 *	N/S 2:	0.323 *
	Left	0.00	0	0	0.000	E/W 1:	0.198
	Right	0.50	0	516	0.000	E/W 2:	0.439 *
Westbound	Through	1.50	3,200	890	0.439 *		
	Left	1.00	1,600	317	0.198	V/C Ratio:	0.762
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	548	0.171	ITS:	0.000
	Left	1.00	1,600	184	0.115 *		
	Right	0.00	0	0	0.000	ICU:	0.862
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	239	0.000	N/S 1:	0.184
Southbound	Through	1.50	3,200	628	0.271 *	N/S 2:	0.434
	Left	0.00	0	0	0.000	E/W 1:	0.159
	Right	0.50	1,600	325	0.203 *	E/W 2:	0.203
Westbound	Through	1.50	1,600	265	0.166		
	Left	1.00	1,600	254	0.159	V/C Ratio:	0.637
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	590	0.184	ITS:	0.000
	Left	1.00	1,600	260	0.163 *		
	Right	0.00	0	0	0.000	ICU:	0.737
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

17. Evergreen Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.50	0	23	0.000	N/S 1:	0.370 *
Southbound	Through	1.00	3,200	463	0.183	N/S 2:	0.309
	Left	0.50	1,600	100	0.063 *	E/W 1:	0.086 *
	Right	0.33	0	42	0.000	E/W 2:	0.077
Westbound	Through	0.34	1,600	39	0.073		
	Left	0.33	1,600	35	0.022 *	V/C Ratio:	0.456
	Right	0.50	0	153	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	628	0.307 *	ITS:	0.000
	Left	0.50	1,600	202	0.126		
	Right	0.33	0	84	0.000	ICU:	0.556
Eastbound	Through	0.34	1,600	12	0.064 *		
	Left	0.33	1,600	6	0.004	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	15	0.000	N/S 1:	0.411 *
Southbound	Through	1.00	3,200	743	0.322	N/S 2:	0.357
	Left	0.50	1,600	273	0.171 *	E/W 1:	0.164 *
	Right	0.33	0	32	0.000	E/W 2:	0.049
Westbound	Through	0.34	1,600	8	0.046		
	Left	0.33	1,600	34	0.021 *	V/C Ratio:	0.575
	Right	0.50	0	107	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	605	0.240 *	ITS:	0.000
	Left	0.50	1,600	56	0.035		
	Right	0.33	0	153	0.000	ICU:	0.675
Eastbound	Through	0.34	1,600	72	0.143 *		
	Left	0.33	1,600	4	0.003	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

18. Evergreen Avenue & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	36	0.000	N/S 1:	0.507 *
Southbound	Through	0.34	1,600	315	0.301	N/S 2:	0.335
	Left	0.33	1,600	130	0.081 *	E/W 1:	0.230 *
	Right	0.00	0	0	0.000	E/W 2:	0.048
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.737
	Right	0.33	0	162	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	465	0.426 *	ITS:	0.000
	Left	0.33	1,600	54	0.034		
	Right	0.33	0	24	0.000	ICU:	0.837
Eastbound	Through	0.34	1,600	267	0.230 *		
	Left	0.33	1,600	77	0.048	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	77	0.000	N/S 1:	0.486 *
Southbound	Through	0.34	1,600	514	0.413	N/S 2:	0.462
	Left	0.33	1,600	69	0.043 *	E/W 1:	0.224 *
	Right	0.00	0	0	0.000	E/W 2:	0.041
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.710
	Right	0.33	0	146	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	484	0.443 *	ITS:	0.000
	Left	0.33	1,600	78	0.049		
	Right	0.33	0	25	0.000	ICU:	0.810
Eastbound	Through	0.34	1,600	268	0.224 *		
	Left	0.33	1,600	66	0.041	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

19. Evergreen Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.495 *
Southbound	Through	2.00	3,200	570	0.178	N/S 2:	0.178
	Left	1.00	1,600	299	0.187 *	E/W 1:	0.305 *
	Right	0.00	0	0	0.000	E/W 2:	0.278
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.800
	Right	0.50	0	281	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	704	0.308 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	354	0.000	ICU:	0.900
Eastbound	Through	1.50	3,200	621	0.305 *		
	Left	1.00	1,600	444	0.278	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.564 *
Southbound	Through	2.00	3,200	901	0.282	N/S 2:	0.282
	Left	1.00	1,600	365	0.228 *	E/W 1:	0.453 *
	Right	0.00	0	0	0.000	E/W 2:	0.140
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	1.017
	Right	0.50	0	316	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	758	0.336 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	463	0.000	ICU:	1.117
Eastbound	Through	1.50	3,200	988	0.453 *		
	Left	1.00	1,600	224	0.140	LOS:	F

^{*} Critical Movement

Intersection Capacity Utilization Analysis

20. Evergreen Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.226 *
Southbound	Through	2.00	3,200	364	0.114	N/S 2:	0.114
	Left	1.00	1,600	63	0.039 *	E/W 1:	0.067 *
	Right	0.00	0	0	0.000	E/W 2:	0.059
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.293
	Right	0.50	0	182	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	416	0.187 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	35	0.000	ICU:	0.393
Eastbound	Through	2.00	4,800	192	0.067 *		
	Left	0.50	1,600	95	0.059	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.290 *
Southbound	Through	2.00	3,200	393	0.123	N/S 2:	0.123
	Left	1.00	1,600	203	0.127 *	E/W 1:	0.182 *
	Right	0.00	0	0	0.000	E/W 2:	0.028
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.472
	Right	0.50	0	182	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	339	0.163 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	106	0.000	ICU:	0.572
Eastbound	Through	2.00	4,800	723	0.182 *		
	Left	0.50	1,600	45	0.028	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

21. Evergreen Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.377 *
Southbound	Through	2.00	3,200	500	0.156	N/S 2:	0.156
	Left	1.00	1,600	347	0.217 *	E/W 1:	0.136
	Right	0.00	0	0	0.000	E/W 2:	0.199 *
Westbound	Through	0.00	0	0	0.000 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.576
	Right	0.50	0	112	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	400	0.160 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	1.00	1,600	217	0.136	ICU:	0.676
Eastbound	Through	2.00	3,200	347	0.108		
	Left	1.00	1,600	319	0.199 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.436 *
Southbound	Through	2.00	3,200	525	0.164	N/S 2:	0.164
	Left	1.00	1,600	347	0.217 *	E/W 1:	0.389 *
	Right	0.00	0	0	0.000	E/W 2:	0.176
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.825
	Right	0.50	0	124	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	576	0.219 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	1.00	1,600	200	0.125	ICU:	0.925
Eastbound	Through	2.00	3,200	1,244	0.389 *		
	Left	1.00	1,600	281	0.176	LOS:	Ε

^{*} Critical Movement

Intersection Capacity Utilization Analysis

22. Pomona Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	126	0.000	N/S 1:	0.236
Southbound	Through	1.50	3,200	775	0.282 *	N/S 2:	0.308 *
	Left	1.00	1,600	74	0.046	E/W 1:	0.180
	Right	0.33	0	141	0.000	E/W 2:	0.243 *
Westbound	Through	0.34	1,600	52	0.147 *		
	Left	0.33	1,600	42	0.026	V/C Ratio:	0.551
	Right	0.50	0	21	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	588	0.190	ITS:	0.000
	Left	1.00	1,600	42	0.026 *		
	Right	0.33	0	61	0.000	ICU:	0.651
Eastbound	Through	0.34	1,600	31	0.154		
	Left	0.33	1,600	154	0.096 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	259	0.000	N/S 1:	0.377
Southbound	Through	1.50	3,200	1,023	0.401 *	N/S 2:	0.439
	Left	1.00	1,600	161	0.101	E/W 1:	0.247
	Right	0.33	0	95	0.000	E/W 2:	0.216
Westbound	Through	0.34	1,600	40	0.115		
	Left	0.33	1,600	49	0.031 *	V/C Ratio:	0.686
	Right	0.50	0	50	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	834	0.276	ITS:	0.000
	Left	1.00	1,600	60	0.038 *		
	Right	0.33	0	86	0.000	ICU:	0.786
Eastbound	Through	0.34	1,600	97	0.216 *		
	Left	0.33	1,600	162	0.101	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

23. Duarte Road & Fifth Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	45	0.000	N/S 1:	0.102
Southbound	Through	0.34	1,600	33	0.098 *	N/S 2:	0.122
	Left	0.33	1,600	79	0.049	E/W 1:	0.232
	Right	0.50	0	164	0.000	E/W 2:	0.512
Westbound	Through	1.50	3,200	1,424	0.496 *		
	Left	1.00	1,600	6	0.004	V/C Ratio:	0.634
	Right	0.33	0	7	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	39	0.053	ITS:	0.000
	Left	0.33	1,600	39	0.024 *		
	Right	0.50	0	34	0.000	ICU:	0.734
Eastbound	Through	1.50	3,200	697	0.228		
	Left	1.00	1,600	26	0.016 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	25	0.000	N/S 1:	0.100
Southbound	Through	0.34	1,600	23	0.110 *	N/S 2:	0.121 *
	Left	0.33	1,600	128	0.080	E/W 1:	0.488 *
	Right	0.50	0	81	0.000	E/W 2:	0.312
Westbound	Through	1.50	3,200	856	0.293		
	Left	1.00	1,600	3	0.002 *	V/C Ratio:	0.609
	Right	0.33	0	10	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.020	ITS:	0.000
	Left	0.33	1,600	18	0.011 *		
	Right	0.50	0	21	0.000	ICU:	0.709
Eastbound	Through	1.50	3,200	1,533	0.486 *		
	Left	1.00	1,600	31	0.019	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

24. Duarte Road & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	255	0.077	N/S 1:	0.236 *
Southbound	Through	1.00	1,600	196	0.123	N/S 2:	0.187
	Left	1.00	1,600	109	0.068 *	E/W 1:	0.191
	Right	0.50	0	199	0.000	E/W 2:	0.455 *
Westbound	Through	1.50	3,200	727	0.289 *		
	Left	1.00	1,600	28	0.018	V/C Ratio:	0.691
	Right	0.50	0	40	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	499	0.168 *	ITS:	0.000
	Left	1.00	1,600	103	0.064		
	Right	0.50	0	32	0.000	ICU:	0.791
Eastbound	Through	1.50	3,200	520	0.173		
	Left	1.00	1,600	265	0.166 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	345	0.117	N/S 1:	0.207
Southbound	Through	1.00	1,600	375	0.234 *	N/S 2:	0.260 *
	Left	1.00	1,600	174	0.109	E/W 1:	0.317
	Right	0.50	0	144	0.000	E/W 2:	0.427 *
Westbound	Through	1.50	3,200	590	0.229 *		
	Left	1.00	1,600	41	0.026	V/C Ratio:	0.687
	Right	0.50	0	37	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	275	0.098	ITS:	0.000
	Left	1.00	1,600	42	0.026 *		
	Right	0.50	0	52	0.000	ICU:	0.787
Eastbound	Through	1.50	3,200	879	0.291		
	Left	1.00	1,600	316	0.198 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

25. Duarte Road & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Υ Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	134	0.018	N/S 1:	0.147 *
Southbound	Through	0.50	1,600	4	0.144 *	N/S 2:	0.000
	Left	0.50	1,600	227	0.142	E/W 1:	0.165
	Right	0.50	0	334	0.000	E/W 2:	0.528 *
Westbound	Through	1.50	3,200	929	0.395 *		
	Left	1.00	1,600	9	0.006	V/C Ratio:	0.675
	Right	0.33	0	1	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	1	0.003 *	ITS:	0.000
	Left	0.33	1,600	3	0.002		
	Right	0.50	0	4	0.000	ICU:	0.775
Eastbound	Through	1.50	3,200	504	0.159		
	Left	1.00	1,600	212	0.133 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	196	0.038	N/S 1:	0.165 *
Southbound	Through	0.50	1,600	0	0.158 *	N/S 2:	0.000
	Left	0.50	1,600	253	0.158	E/W 1:	0.321
	Right	0.50	0	324	0.000	E/W 2:	0.463 *
Westbound	Through	1.50	3,200	617	0.294 *		
	Left	1.00	1,600	2	0.001	V/C Ratio:	0.628
	Right	0.33	0	3	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	2	0.007 *	ITS:	0.000
	Left	0.33	1,600	6	0.004		
	Right	0.50	0	2	0.000	ICU:	0.728
Eastbound	Through	1.50	3,200	1,023	0.320		
	Left	1.00	1,600	271	0.169 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

26. Duarte Road & Peck Road

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	131	0.000	N/S 1:	0.386
Southbound	Through	0.34	1,600	2	0.135 *	N/S 2:	0.398 *
	Left	0.33	1,600	83	0.052	E/W 1:	0.246 *
	Right	0.50	0	12	0.000	E/W 2:	0.204
Westbound	Through	1.50	3,200	631	0.201		
	Left	1.00	1,600	20	0.013 *	V/C Ratio:	0.644
	Right	0.33	0	110	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.334	ITS:	0.000
	Left	0.33	1,600	421	0.263 *		
	Right	0.50	0	110	0.000	ICU:	0.744
Eastbound	Through	1.50	3,200	635	0.233 *		
	Left	1.00	1,600	4	0.003	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	90	0.000	N/S 1:	0.224
Southbound	Through	0.34	1,600	10	0.101 *	N/S 2:	0.240 *
	Left	0.33	1,600	62	0.039	E/W 1:	0.363 *
	Right	0.50	0	125	0.000	E/W 2:	0.247
Westbound	Through	1.50	3,200	608	0.229		
	Left	1.00	1,600	29	0.018 *	V/C Ratio:	0.603
	Right	0.33	0	70	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	3	0.185	ITS:	0.000
	Left	0.33	1,600	223	0.139 *		
	Right	0.50	0	276	0.000	ICU:	0.703
Eastbound	Through	1.50	3,200	827	0.345 *		
	Left	1.00	1,600	28	0.018	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

27. Duarte Road & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	0.50	0	0 192	0.000	N/S 1:	0.210
Through	1.50	3,200	642	0.261 *	N/S 2:	0.360 *
Left	1.00	1,600	43	0.027	E/W 1:	0.202
Right	0.50	0	34	0.000	E/W 2:	0.237 *
Through	1.50	3,200	327	0.113 *		
Left	1.00	1,600	64	0.040	V/C Ratio:	0.597
Right	0.50	0	61	0.000	Loss Time:	0.300
Through	1.50	3,200	525	0.183	ITS:	0.000
Left	1.00	1,600	159	0.099 *		
Right	0.50	0	165	0.000	ICU:	0.897
Through	1.50	3,200	352	0.162		
Left	1.00	1,600	198	0.124 *	LOS:	D
	Right Through Left Right Through Left Right Through Left Right Through Left Right	Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 1.50 Through 1.50	Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Through 1.50 3,200	Right 0.50 0 192 Through 1.50 3,200 642 Left 1.00 1,600 43 Right 0.50 0 34 Through 1.50 3,200 327 Left 1.00 1,600 64 Right 0.50 0 61 Through 1.50 3,200 525 Left 1.00 1,600 159 Right 0.50 0 165 Through 1.50 3,200 352	Right 0.50 0 192 0.000 Through 1.50 3,200 642 0.261 * Left 1.00 1,600 43 0.027 Right 0.50 0 34 0.000 Through 1.50 3,200 327 0.113 * Left 1.00 1,600 64 0.040 Right 0.50 0 61 0.000 Through 1.50 3,200 525 0.183 Left 1.00 1,600 159 0.099 * Right 0.50 0 165 0.000 Through 1.50 3,200 352 0.162	Right 0.50 0 192 0.000 N/S 1: Through 1.50 3,200 642 0.261 * N/S 2: Left 1.00 1,600 43 0.027 E/W 1: Right 0.50 0 34 0.000 E/W 2: Through 1.50 3,200 327 0.113 * Left 1.00 1,600 64 0.040 V/C Ratio: Right 0.50 0 61 0.000 Loss Time: Through 1.50 3,200 525 0.183 ITS: Left 1.00 1,600 159 0.099 * Right 0.50 0 165 0.000 ICU: Through 1.50 3,200 352 0.162

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	293	0.000	N/S 1:	0.240
Southbound	Through	1.50	3,200	777	0.334 *	N/S 2:	0.438
	Left	1.00	1,600	53	0.033	E/W 1:	0.338 3
	Right	0.50	0	41	0.000	E/W 2:	0.273
Westbound	Through	1.50	3,200	402	0.138		
	Left	1.00	1,600	85	0.053 *	V/C Ratio:	0.776
	Right	0.50	0	59	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	604	0.207	ITS:	0.000
	Left	1.00	1,600	167	0.104 *		
	Right	0.50	0	348	0.000	ICU:	1.076
Eastbound	Through	1.50	3,200	564	0.285 *		
	Left	1.00	1,600	216	0.135	LOS:	F

^{*} Critical Movement

Intersection Capacity Utilization Analysis

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28. Duarte Road & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	90	0.000	N/S 1:	0.184 *
Southbound	Through	1.50	3,200	180	0.084	N/S 2:	0.133
	Left	1.00	1,600	34	0.021 *	E/W 1:	0.218
	Right	0.50	0	43	0.000	E/W 2:	0.291 *
Westbound	Through	0.50	1,600	282	0.203 *		
	Left	1.00	1,600	46	0.029	V/C Ratio:	0.475
	Right	0.50	0	66	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	456	0.163 *	ITS:	0.000
	Left	1.00	1,600	79	0.049		
	Right	0.50	0	29	0.000	ICU:	0.775
Eastbound	Through	0.50	1,600	274	0.189		
	Left	1.00	1,600	140	0.088 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	52	0.000	N/S 1:	0.217 *
Southbound	Through	1.50	3,200	343	0.123	N/S 2:	0.152
	Left	1.00	1,600	90	0.056 *	E/W 1:	0.242
	Right	0.50	0	45	0.000	E/W 2:	0.305 *
Westbound	Through	0.50	1,600	308	0.221 *		
	Left	1.00	1,600	65	0.041	V/C Ratio:	0.522
	Right	0.50	0	136	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	379	0.161 *	ITS:	0.000
	Left	1.00	1,600	46	0.029		
	Right	0.50	0	28	0.000	ICU:	0.822
Eastbound	Through	0.50	1,600	294	0.201		
	Left	1.00	1,600	134	0.084 *	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

29. Duarte Road & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	155	0.047	N/S 1:	0.183 *
Southbound	Through	1.00	1,600	168	0.105	N/S 2:	0.123
	Left	1.00	1,600	89	0.056 *	E/W 1:	0.142
	Right	1.00	1,600	157	0.070	E/W 2:	0.183 *
Westbound	Through	2.00	3,200	261	0.082 *		
	Left	1.00	1,600	81	0.051	V/C Ratio:	0.366
	Right	1.00	1,600	142	0.063	Loss Time:	0.300
Northbound	Through	1.00	1,600	203	0.127 *	ITS:	0.000
	Left	1.00	1,600	29	0.018		
	Right	0.50	0	29	0.000	ICU:	0.666
Eastbound	Through	1.50	3,200	263	0.091		
	Left	1.00	1,600	161	0.101 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	213	0.072	N/S 1:	0.176
Southbound	Through	1.00	1,600	324	0.203 *	N/S 2:	0.219 '
	Left	1.00	1,600	110	0.069	E/W 1:	0.237 3
	Right	1.00	1,600	180	0.078	E/W 2:	0.205
Westbound	Through	2.00	3,200	267	0.083		
	Left	1.00	1,600	51	0.032 *	V/C Ratio:	0.456
	Right	1.00	1,600	107	0.051	Loss Time:	0.300
Northbound	Through	1.00	1,600	171	0.107	ITS:	0.000
	Left	1.00	1,600	26	0.016 *		
	Right	0.50	0	111	0.000	ICU:	0.756
Eastbound	Through	1.50	3,200	544	0.205 *		
	Left	1.00	1,600	195	0.122	LOS:	С

^{*} Critical Movement

Future Buildout Conditions with Planned Improvements and Mitigations (Year 2040)

Intersection Capacity Utilization Analysis

1. Huntington Drive & Fifth Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: Y
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
Right	0.50	0	66	0.000	N/S 1:	0.196 *
Through	0.50	1,600	34	0.063	N/S 2:	0.000
Left	1.00	1,600	180	0.113 *	E/W 1:	0.295
Right	1.00	1,600	217	0.079	E/W 2:	0.495 *
Through	2.00	3,200	1,471	0.460 *		
Left	1.00	1,600	224	0.140	V/C Ratio:	0.691
Right	0.50	0	106	0.000	Loss Time:	0.100
Through	0.50	1,600	26	0.083 *	ITS:	-0.100
Left	1.00	1,600	45	0.028		
Right	0.50	0	68	0.000	ICU:	0.691
Through	2.50	4,800	676	0.155		
Left	1.00	1,600	56	0.035 *	LOS:	В
	Right Through Left Right Through Left Right Through Left Through Left Right Through	Right 0.50 Through 0.50 Left 1.00 Right 1.00 Through 2.00 Left 1.00 Right 0.50 Through 0.50 Right 0.50 Through 2.50	Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 2.50 4,800	Right 0.50 0 66 Through 0.50 1,600 34 Left 1.00 1,600 180 Right 1.00 1,600 217 Through 2.00 3,200 1,471 Left 1.00 1,600 224 Right 0.50 0 106 Through 0.50 1,600 26 Left 1.00 1,600 45 Right 0.50 0 68 Through 2.50 4,800 676	Right 0.50 0 66 0.000 Through 0.50 1,600 34 0.063 Left 1.00 1,600 180 0.113 * Right 1.00 1,600 217 0.079 Through 2.00 3,200 1,471 0.460 * Left 1.00 1,600 224 0.140 Right 0.50 0 106 0.000 Through 0.50 1,600 26 0.083 * Left 1.00 1,600 45 0.028 Right 0.50 0 68 0.000 Through 2.50 4,800 676 0.155	Right 0.50 0 66 0.000 N/S 1: Through 0.50 1,600 34 0.063 N/S 2: Left 1.00 1,600 180 0.113 * E/W 1: Right 1.00 1,600 217 0.079 E/W 2: Through 2.00 3,200 1,471 0.460 * Left 1.00 1,600 224 0.140 V/C Ratio: Right 0.50 0 106 0.000 Loss Time: Through 0.50 1,600 26 0.083 * ITS: Left 1.00 1,600 45 0.028 Right 0.50 0 68 0.000 ICU: Through 2.50 4,800 676 0.155

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	92	0.000	N/S 1:	0.357 *
Southbound	Through	0.50	1,600	30	0.076	N/S 2:	0.000
	Left	1.00	1,600	209	0.131 *	E/W 1:	0.441 *
	Right	1.00	1,600	192	0.055	E/W 2:	0.336
Westbound	Through	2.00	3,200	911	0.285		
	Left	1.00	1,600	140	0.088 *	V/C Ratio:	0.798
	Right	0.50	0	300	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	61	0.226 *	ITS:	-0.100
	Left	1.00	1,600	92	0.058		
	Right	0.50	0	37	0.000	ICU:	0.798
Eastbound	Through	2.50	4,800	1,658	0.353 *		
	Left	1.00	1,600	81	0.051	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

2. Huntington Drive & I-210 EB Ramps/ Driveway

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
Right	1.00	1,600	234	0.146 *	N/S 1:	0.142
Through	0.50	80	10	0.125	N/S 2:	0.172 *
Left	1.50	3,120	390	0.125	E/W 1:	0.202
Right	1.00	1,600	148	0.030	E/W 2:	0.518 *
Through	2.00	3,200	1,659	0.518 *		
Left	1.00	1,600	9	0.006	V/C Ratio:	0.690
Right	1.00	1,600	32	0.017	Loss Time:	0.100
Through	0.00	0	0	0.000	ITS:	-0.100
Left	1.00	1,600	41	0.026 *		
Right	0.50	0	12	0.000	ICU:	0.690
Through	2.50	4,800	927	0.196		
Left	0.00	0	0	0.000 *	LOS:	В
	Right Through Left Right Through Left Right Through Left Right Through Left Right	Right 1.00 Through 0.50 Left 1.50 Right 1.00 Through 2.00 Left 1.00 Right 1.00 Through 0.00 Left 1.00 Right 0.50 Through 2.50	Right 1.00 1,600 Through 0.50 80 Left 1.50 3,120 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 1.00 1,600 Through 0.00 0 Left 1.00 1,600 Right 0.50 0 Through 2.50 4,800	Right 1.00 1,600 234 Through 0.50 80 10 Left 1.50 3,120 390 Right 1.00 1,600 148 Through 2.00 3,200 1,659 Left 1.00 1,600 9 Right 1.00 1,600 32 Through 0.00 0 0 Left 1.00 1,600 41 Right 0.50 0 12 Through 2.50 4,800 927	Right 1.00 1,600 234 0.146 * Through 0.50 80 10 0.125 Left 1.50 3,120 390 0.125 Right 1.00 1,600 148 0.030 Through 2.00 3,200 1,659 0.518 * Left 1.00 1,600 9 0.006 Right 1.00 1,600 32 0.017 Through 0.00 0 0 0.000 Left 1.00 1,600 41 0.026 * Right 0.50 0 12 0.000 Through 2.50 4,800 927 0.196	Right 1.00 1,600 234 0.146 * N/S 1: Through 0.50 80 10 0.125 N/S 2: Left 1.50 3,120 390 0.125 E/W 1: Right 1.00 1,600 148 0.030 E/W 2: Through 2.00 3,200 1,659 0.518 * Left 1.00 1,600 9 0.006 V/C Ratio: Right 1.00 1,600 32 0.017 Loss Time: Through 0.00 0 0.000 ITS: Left 1.00 1,600 41 0.026 * Right 0.50 0 12 0.000 ICU: Through 2.50 4,800 927 0.196

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	1.00	1,600	127	0.079	N/S 1:	0.218
Southbound	Through	0.50	19	4	0.214 *	N/S 2:	0.229 *
	Left	1.50	3,181	680	0.214	E/W 1:	0.402
	Right	1.00	1,600	161	0.000	E/W 2:	0.405 *
Westbound	Through	2.00	3,200	1,293	0.404 *		
	Left	1.00	1,600	22	0.014	V/C Ratio:	0.634
	Right	1.00	1,600	18	0.004	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000	ITS:	-0.100
	Left	1.00	1,600	24	0.015 *		
	Right	0.50	0	30	0.000	ICU:	0.634
Eastbound	Through	2.50	4,800	1,829	0.388		
	Left	0.00	1,600	1	0.001 *	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

3. Huntington Drive & I-210 WB Ramps

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.50	2,400	195	0.062	N/S 1:	0.081 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.062
	Left	0.50	800	65	0.081 *	E/W 1:	0.167
	Right	1.00	1,600	799	0.459	E/W 2:	0.551 *
Westbound	Through	2.00	3,200	1,638	0.512 *		
	Left	0.00	1,600	1	0.001	V/C Ratio:	0.632
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	-0.100
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.632
Eastbound	Through	3.00	4,800	795	0.166		
	Left	1.00	1,600	63	0.039 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	1.50	2,074	418	0.158	N/S 1:	0.202 *
Southbound	Through	0.00	0	0	0.000	N/S 2:	0.158
	Left	0.50	1,126	227	0.202 *	E/W 1:	0.371
	Right	1.00	1,600	852	0.432	E/W 2:	0.644 *
Westbound	Through	2.00	3,200	1,782	0.557 *		
	Left	0.00	1,600	1	0.001	V/C Ratio:	0.846
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	-0.100
	Left	0.00	0	0	0.000		
	Right	0.00	0	0	0.000	ICU:	0.846
Eastbound	Through	3.00	4,800	1,777	0.370		
	Left	1.00	1,600	139	0.087 *	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

4. Huntington Drive & Monterey Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
Right	0.50	0	145	0.000	N/S 1:	0.173
Through	0.50	1,600	70	0.134 *	N/S 2:	0.319 *
Left	1.00	1,600	51	0.032	E/W 1:	0.157
Right	0.50	0	76	0.000	E/W 2:	0.430 *
Through	2.50	4,800	1,902	0.412 *		
Left	1.00	1,600	64	0.040	V/C Ratio:	0.749
Right	0.50	0	45	0.000	Loss Time:	0.100
Through	0.50	1,600	180	0.141	ITS:	-0.100
Left	1.00	1,600	296	0.185 *		
Right	0.50	0	121	0.000	ICU:	0.749
Through	3.50	6,400	630	0.117		
Left	1.00	1,600	28	0.018 *	LOS:	С
	Right Through Left Right Through Left Right Through Left Right Through Left Right	Right 0.50 Through 0.50 Left 1.00 Right 0.50 Through 2.50 Left 1.00 Right 0.50 Through 0.50 Right 0.50 Through 3.50	Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 2.50 4,800 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 3.50 6,400	Right 0.50 0 145 Through 0.50 1,600 70 Left 1.00 1,600 51 Right 0.50 0 76 Through 2.50 4,800 1,902 Left 1.00 1,600 64 Right 0.50 0 45 Through 0.50 1,600 180 Left 1.00 1,600 296 Right 0.50 0 121 Through 3.50 6,400 630	Right 0.50 0 145 0.000 Through 0.50 1,600 70 0.134 * Left 1.00 1,600 51 0.032 Right 0.50 0 76 0.000 Through 2.50 4,800 1,902 0.412 * Left 1.00 1,600 64 0.040 Right 0.50 0 45 0.000 Through 0.50 1,600 180 0.141 Left 1.00 1,600 296 0.185 * Right 0.50 0 121 0.000 Through 3.50 6,400 630 0.117	Right 0.50 0 145 0.000 N/S 1: Through 0.50 1,600 70 0.134 * N/S 2: Left 1.00 1,600 51 0.032 E/W 1: Right 0.50 0 76 0.000 E/W 2: Through 2.50 4,800 1,902 0.412 * Left 1.00 1,600 64 0.040 V/C Ratio: Right 0.50 0 45 0.000 Loss Time: Through 0.50 1,600 180 0.141 ITS: Left 1.00 1,600 296 0.185 * Right 0.50 0 121 0.000 ICU: Through 3.50 6,400 630 0.117

		Capacity	Volume	V/C	ICU Ana	iysis
Right	0.50	0	100	0.000	N/S 1:	0.227
Through	0.50	1,600	139	0.149 *	N/S 2:	0.414 *
Left	1.00	1,600	81	0.051	E/W 1:	0.475 *
Right	0.50	0	80	0.000	E/W 2:	0.304
Through	2.50	4,800	1,175	0.261		
Left	1.00	1,600	198	0.124 *	V/C Ratio:	0.889
Right	0.50	0	194	0.000	Loss Time:	0.100
Through	0.50	1,600	87	0.176	ITS:	-0.100
Left	1.00	1,600	424	0.265 *		
Right	0.50	1,600	562	0.351 *	ICU:	0.889
Through	3.50	4,800	1,522	0.317		
Left	1.00	1,600	69	0.043	LOS:	D
	Through Left Right Through Left Right Through Left Right Through Left Right Through	Through 0.50 Left 1.00 Right 0.50 Through 2.50 Left 1.00 Right 0.50 Through 0.50 Through 0.50 Left 1.00 Right 0.50 Left 1.00 Right 0.50 Through 3.50	Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 2.50 4,800 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 1,600 Through 3.50 4,800	Through 0.50 1,600 139 Left 1.00 1,600 81 Right 0.50 0 80 Through 2.50 4,800 1,175 Left 1.00 1,600 198 Right 0.50 0 194 Through 0.50 1,600 87 Left 1.00 1,600 424 Right 0.50 1,600 562 Through 3.50 4,800 1,522	Through 0.50 1,600 139 0.149 * Left 1.00 1,600 81 0.051 Right 0.50 0 80 0.000 Through 2.50 4,800 1,175 0.261 Left 1.00 1,600 198 0.124 * Right 0.50 0 194 0.000 Through 0.50 1,600 87 0.176 Left 1.00 1,600 424 0.265 * Right 0.50 1,600 562 0.351 * Through 3.50 4,800 1,522 0.317	Through 0.50 1,600 139 0.149 * N/S 2: Left 1.00 1,600 81 0.051 E/W 1: Right 0.50 0 80 0.000 E/W 2: Through 2.50 4,800 1,175 0.261 User Left 1.00 1,600 198 0.124 * V/C Ratio: Right 0.50 0 194 0.000 Loss Time: Through 0.50 1,600 87 0.176 ITS: Left 1.00 1,600 424 0.265 * ICU: Right 0.50 1,600 562 0.351 * ICU: Through 3.50 4,800 1,522 0.317

^{*} Critical Movement

Intersection Capacity Utilization Analysis

5. Huntington Drive & Mayflower Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	46	0.000	N/S 1:	0.296 *
Southbound	Through	1.50	3,200	268	0.098	N/S 2:	0.270
	Left	1.00	1,600	91	0.057 *	E/W 1:	0.233
	Right	0.50	0	42	0.000	E/W 2:	0.453 *
Westbound	Through	1.50	3,200	1,330	0.429 *		
	Left	1.00	1,600	56	0.035	V/C Ratio:	0.749
	Right	0.50	0	65	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	318	0.239 *	ITS:	-0.100
	Left	2.00	3,200	551	0.172		
	Right	0.50	0	138	0.000	ICU:	0.749
Eastbound	Through	1.50	3,200	495	0.198		
	Left	1.00	1,600	39	0.024 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	81	0.000	N/S 1:	0.304 *
Southbound	Through	1.50	3,200	297	0.118	N/S 2:	0.252
	Left	1.00	1,600	117	0.073 *	E/W 1:	0.593 *
	Right	0.50	0	47	0.000	E/W 2:	0.349
Westbound	Through	1.50	3,200	909	0.299		
	Left	1.00	1,600	164	0.103 *	V/C Ratio:	0.897
	Right	0.50	0	136	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	234	0.231 *	ITS:	-0.100
	Left	2.00	3,200	429	0.134		
	Right	0.50	0	283	0.000	ICU:	0.897
Eastbound	Through	1.50	3,200	1,286	0.490 *		
	Left	1.00	1,600	80	0.050	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

6. Huntington Drive & Magnolia Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	40	0.000	N/S 1:	0.292 *
Southbound	Through	0.50	1,600	249	0.181	N/S 2:	0.275
	Left	1.00	1,600	69	0.043 *	E/W 1:	0.219
	Right	0.50	0	100	0.000	E/W 2:	0.496 *
Westbound	Through	1.50	3,200	1,300	0.438 *		
	Left	1.00	1,600	47	0.029	V/C Ratio:	0.788
	Right	0.50	0	77	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	322	0.249 *	ITS:	-0.100
	Left	1.00	1,600	151	0.094		
	Right	0.50	0	57	0.000	ICU:	0.788
Eastbound	Through	1.50	3,200	550	0.190		
	Left	1.00	1,600	93	0.058 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	64	0.000	N/S 1:	0.297
Southbound	Through	0.50	1,600	293	0.223 *	N/S 2:	0.326 *
	Left	1.00	1,600	117	0.073	E/W 1:	0.555 3
	Right	0.50	0	43	0.000	E/W 2:	0.390
Westbound	Through	1.50	3,200	1,025	0.334		
	Left	1.00	1,600	141	0.088 *	V/C Ratio:	0.881
	Right	0.50	0	102	0.000	Loss Time:	0.100
Northbound	Through	0.50	1,600	257	0.224	ITS:	-0.100
	Left	1.00	1,600	165	0.103 *		
	Right	0.50	0	165	0.000	ICU:	0.881
Eastbound	Through	1.50	3,200	1,330	0.467 *		
	Left	1.00	1,600	90	0.056	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

7. Huntington Drive & Primrose Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.33	0	37	0.000	N/S 1:	0.031
Southbound	Through	0.34	1,600	0	0.036 *	N/S 2:	0.037
	Left	0.33	1,600	20	0.013	E/W 1:	0.175
	Right	0.50	0	48	0.000	E/W 2:	0.442
Westbound	Through	1.50	3,200	1,195	0.388 *		
	Left	1.00	1,600	19	0.012	V/C Ratio:	0.479
	Right	0.33	0	20	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	8	0.018	ITS:	-0.100
	Left	0.33	1,600	1	0.001 *		
	Right	0.50	0	6	0.000	ICU:	0.479
Eastbound	Through	1.50	3,200	516	0.163		
	Left	1.00	1,600	86	0.054 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.33	0	113	0.000	N/S 1:	0.029
Southbound	Through	0.34	1,600	9	0.084 *	N/S 2:	0.088 *
	Left	0.33	1,600	13	0.008	E/W 1:	0.461 *
	Right	0.50	0	55	0.000	E/W 2:	0.382
Westbound	Through	1.50	3,200	1,013	0.334		
	Left	1.00	1,600	26	0.016 *	V/C Ratio:	0.549
	Right	0.33	0	23	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.021	ITS:	-0.100
	Left	0.33	1,600	6	0.004 *		
	Right	0.50	0	17	0.000	ICU:	0.549
Eastbound	Through	1.50	3,200	1,408	0.445 *		
	Left	1.00	1,600	76	0.048	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

8. Huntington Drive & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

C ICU Analysis
0 N/S 1: 0.276
2 * N/S 2: 0.299
1 E/W 1: 0.227
0 E/W 2: 0.479
1 *
9 V/C Ratio: 0.778
0 Loss Time: 0.100
5 ITS: -0.100
7 *
4 ICU: 0.778
8
8 * LOS: C
4

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	103	0.000	N/S 1:	0.286
Southbound	Through	1.50	3,200	642	0.233 *	N/S 2:	0.361 *
	Left	1.00	1,600	140	0.088	E/W 1:	0.441 *
	Right	0.50	0	65	0.000	E/W 2:	0.362
Westbound	Through	1.50	3,200	826	0.278		
	Left	1.00	1,600	167	0.104 *	V/C Ratio:	0.802
	Right	0.50	0	164	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	468	0.198	ITS:	-0.100
	Left	1.00	1,600	205	0.128 *		
	Right	1.00	1,600	228	0.078	ICU:	0.802
Eastbound	Through	2.00	3,200	1,077	0.337 *		
	Left	1.00	1,600	134	0.084	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

9. Huntington Drive & Ivy Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.33	0	30	0.000	N/S 1:	0.020
Southbound	Through	0.34	1,600	6	0.028 *	N/S 2:	0.031 *
	Left	0.33	1,600	8	0.005	E/W 1:	0.169
	Right	0.50	0	66	0.000	E/W 2:	0.403 3
Westbound	Through	1.50	3,200	1,133	0.375 *		
	Left	1.00	1,600	22	0.014	V/C Ratio:	0.434
	Right	0.33	0	11	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	8	0.015	ITS:	-0.100
	Left	0.33	1,600	5	0.003 *		
	Right	0.50	0	14	0.000	ICU:	0.434
Eastbound	Through	1.50	3,200	481	0.155		
	Left	1.00	1,600	45	0.028 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.33	0	112	0.000	N/S 1:	0.042
Southbound	Through	0.34	1,600	5	0.099 *	N/S 2:	0.101 *
	Left	0.33	1,600	41	0.026	E/W 1:	0.482 *
	Right	0.50	0	45	0.000	E/W 2:	0.345
Westbound	Through	1.50	3,200	911	0.299		
	Left	1.00	1,600	34	0.021 *	V/C Ratio:	0.583
	Right	0.33	0	16	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	6	0.016	ITS:	-0.100
	Left	0.33	1,600	3	0.002 *		
	Right	0.50	0	14	0.000	ICU:	0.583
Eastbound	Through	1.50	3,200	1,460	0.461 *		
	Left	1.00	1,600	74	0.046	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

10. Huntington Drive & California Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	67	0.000	N/S 1:	0.144
Southbound	Through	0.50	1,600	254	0.201 *	N/S 2:	0.284 *
	Left	1.00	1,600	36	0.023	E/W 1:	0.220
	Right	0.50	0	34	0.000	E/W 2:	0.528
Westbound	Through	1.50	3,200	1,524	0.487 *		
	Left	1.00	1,600	51	0.032	V/C Ratio:	0.812
	Right	0.50	0	103	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	284	0.121	ITS:	-0.100
	Left	1.00	1,600	132	0.083 *		
	Right	0.50	0	44	0.000	ICU:	0.812
Eastbound	Through	1.50	3,200	556	0.188		
	Left	1.00	1,600	66	0.041 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	41	0.000	N/S 1:	0.137
Southbound	Through	0.50	1,600	228	0.168 *	N/S 2:	0.194 *
	Left	1.00	1,600	61	0.038	E/W 1:	0.527 *
	Right	0.50	0	25	0.000	E/W 2:	0.333
Westbound	Through	1.50	3,200	877	0.282		
	Left	1.00	1,600	95	0.059 *	V/C Ratio:	0.721
	Right	0.50	0	95	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	223	0.099	ITS:	-0.100
	Left	1.00	1,600	42	0.026 *		
	Right	0.50	0	103	0.000	ICU:	0.721
Eastbound	Through	1.50	3,200	1,396	0.468 *		
	Left	1.00	1,600	81	0.051	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

11. Huntington Drive & Mountain Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	60	0.000	N/S 1:	0.315
Southbound	Through	1.50	3,200	408	0.146 *	N/S 2:	0.401 3
	Left	1.00	1,600	111	0.069	E/W 1:	0.168
	Right	0.50	0	249	0.000	E/W 2:	0.341
Westbound	Through	2.50	4,800	977	0.255 *		
	Left	1.00	1,600	90	0.056	V/C Ratio:	0.742
	Right	0.50	0	110	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	677	0.246	ITS:	-0.100
	Left	1.00	1,600	408	0.255 *		
	Right	0.50	0	135	0.000	ICU:	0.742
Eastbound	Through	2.50	4,800	401	0.112		
	Left	1.00	1,600	137	0.086 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.50	0	75	0.000	N/S 1:	0.377 *
Southbound	Through	1.50	3,200	575	0.203	N/S 2:	0.355
	Left	1.00	1,600	256	0.160 *	E/W 1:	0.432 *
	Right	0.50	0	79	0.000	E/W 2:	0.193
Westbound	Through	2.50	4,800	686	0.159		
	Left	1.00	1,600	132	0.083 *	V/C Ratio:	0.809
	Right	0.50	0	220	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	473	0.217 *	ITS:	-0.100
	Left	1.00	1,600	243	0.152		
	Right	0.50	0	310	0.000	ICU:	0.809
Eastbound	Through	2.50	4,800	1,366	0.349 *		
	Left	1.00	1,600	55	0.034	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

12. Central Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

.

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right (0.50	0	1	0.000	N/S 1:	0.200 *
Southbound	Through	1.50	3,200	490	0.153	N/S 2:	0.162
	Left	0.00	0	0	0.000 *	E/W 1:	0.084
	Right	0.50	0	339	0.000	E/W 2:	0.232 *
Westbound	Through	0.50	1,600	31	0.231 *		
	Left	1.00	1,600	135	0.084	V/C Ratio:	0.432
	Right	0.50	0	0	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	640	0.200 *	ITS:	0.000
	Left	1.00	1,600	15	0.009		
	Right	0.50	0	0	0.000	ICU:	0.532
Eastbound	Through	0.00	0	0	0.000		
	Left	0.50	1,600	1	0.001 *	LOS:	Α

	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	0.50	0	1	0.000	N/S 1:	0.206
Through	1.50	3,200	869	0.272 *	N/S 2:	0.276
Left	0.00	0	0	0.000	E/W 1:	0.105
Right	0.50	0	184	0.000	E/W 2:	0.127
Through	0.50	1,600	4	0.118 *		
Left	1.00	1,600	168	0.105	V/C Ratio:	0.403
Right	0.50	0	0	0.000	Loss Time:	0.100
Through	1.50	3,200	660	0.206	ITS:	0.000
Left	1.00	1,600	6	0.004 *		
Right	0.50	0	0	0.000	ICU:	0.503
Through	0.00	0	0	0.000		
Left	0.50	1,600	15	0.009 *	LOS:	Α
	Through Left Right Through Left Right Through Left Right Through Left Right Through	Through 1.50 Left 0.00 Right 0.50 Through 0.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 0.00	Through 1.50 3,200 Left 0.00 0 Right 0.50 0 Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.00 0	Through 1.50 3,200 869 Left 0.00 0 0 Right 0.50 0 184 Through 0.50 1,600 4 Left 1.00 1,600 168 Right 0.50 0 0 Through 1.50 3,200 660 Left 1.00 1,600 6 Right 0.50 0 0 Through 0.00 0 0	Through 1.50 3,200 869 0.272 * Left 0.00 0 0 0.000 Right 0.50 0 184 0.000 Through 0.50 1,600 4 0.118 * Left 1.00 1,600 168 0.105 Right 0.50 0 0 0.000 Through 1.50 3,200 660 0.206 Left 1.00 1,600 6 0.004 * Right 0.50 0 0 0.000 Through 0.00 0 0.000	Through 1.50 3,200 869 0.272 * N/S 2: Left 0.00 0 0 0.000 E/W 1: Right 0.50 0 184 0.000 E/W 2: Through 0.50 1,600 4 0.118 * Left 1.00 1,600 168 0.105 V/C Ratio: Right 0.50 0 0 0.000 Loss Time: Through 1.50 3,200 660 0.206 ITS: Left 1.00 1,600 6 0.004 * ICU: Right 0.50 0 0 0.000 ICU: Through 0.00 0 0.000 ICU:

^{*} Critical Movement

Intersection Capacity Utilization Analysis

13. Central Avenue & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	10	0.000	N/S 1:	0.336 *
Southbound	Through	0.34	1,600	368	0.236	N/S 2:	0.289
	Left	0.33	0	0	0.000 *	E/W 1:	0.066
	Right	0.50	0	40	0.000	E/W 2:	0.145 *
Westbound	Through	1.00	3,200	317	0.145 *		
	Left	0.50	1,600	106	0.066	V/C Ratio:	0.481
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	454	0.336 *	ITS:	0.000
	Left	0.33	1,600	84	0.053		
	Right	0.00	0	0	0.000	ICU:	0.581
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	11	0.000	N/S 1:	0.344
Southbound	Through	0.34	1,600	539	0.344 *	N/S 2:	0.388 3
	Left	0.33	0	0	0.000	E/W 1:	0.088
	Right	0.50	0	78	0.000	E/W 2:	0.154 *
Westbound	Through	1.00	3,200	276	0.154 *		
	Left	0.50	1,600	140	0.088	V/C Ratio:	0.542
	Right	0.33	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	480	0.344	ITS:	0.000
	Left	0.33	1,600	71	0.044 *		
	Right	0.00	0	0	0.000	ICU:	0.642
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

14. Central Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 0 %

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	1.00	1,600	129	0.081	N/S 1:	0.236
Southbound	Through	2.00	3,200	578	0.181 *	N/S 2:	0.433 *
	Left	0.00	0	0	0.000	E/W 1:	0.184
	Right	1.00	1,600	382	0.239	E/W 2:	0.297 *
Westbound	Through	1.50	3,200	656	0.297 *		
	Left	0.50	1,600	294	0.184	V/C Ratio:	0.730
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	755	0.236	ITS:	-0.100
	Left	1.00	1,600	403	0.252 *		
	Right	0.00	0	0	0.000	ICU:	0.730
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	1.00	1,600	245	0.153	N/S 1:	0.168
Southbound	Through	2.00	3,200	878	0.274 *	N/S 2:	0.551
	Left	0.00	0	0	0.000	E/W 1:	0.234
	Right	1.00	1,600	342	0.214	E/W 2:	0.336
Westbound	Through	1.50	3,200	701	0.336 *		
	Left	0.50	1,600	375	0.234	V/C Ratio:	0.887
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	536	0.168	ITS:	-0.100
	Left	1.00	1,600	443	0.277 *		
	Right	0.00	0	0	0.000	ICU:	0.887
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

15. Central Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	44	0.000	N/S 1:	0.134
Southbound	Through	1.50	3,200	304	0.109 *	N/S 2:	0.162
	Left	0.00	0	0	0.000	E/W 1:	0.078
	Right	0.50	0	209	0.000	E/W 2:	0.145
Westbound	Through	2.00	4,800	363	0.145 *		
	Left	0.50	1,600	125	0.078	V/C Ratio:	0.307
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	428	0.134	ITS:	0.000
	Left	1.00	1,600	85	0.053 *		
	Right	0.00	0	0	0.000	ICU:	0.407
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	57	0.000	N/S 1:	0.088
Southbound	Through	1.50	3,200	508	0.177 *	N/S 2:	0.216 *
	Left	0.00	0	0	0.000	E/W 1:	0.058
	Right	0.50	0	55	0.000	E/W 2:	0.080 3
Westbound	Through	2.00	4,800	236	0.080 *		
	Left	0.50	1,600	93	0.058	V/C Ratio:	0.296
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	281	0.088	ITS:	0.000
	Left	1.00	1,600	62	0.039 *		
	Right	0.00	0	0	0.000	ICU:	0.396
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

16. Central Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	137	0.000	N/S 1:	0.171
Southbound	Through	1.50	3,200	530	0.208 *	N/S 2:	0.323 *
	Left	0.00	0	0	0.000	E/W 1:	0.198
	Right	0.50	0	516	0.000	E/W 2:	0.439 *
Westbound	Through	1.50	3,200	890	0.439 *		
	Left	1.00	1,600	317	0.198	V/C Ratio:	0.762
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	548	0.171	ITS:	0.000
	Left	1.00	1,600	184	0.115 *		
	Right	0.00	0	0	0.000	ICU:	0.862
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	239	0.000	N/S 1:	0.184
Southbound	Through	1.50	3,200	628	0.271 *	N/S 2:	0.434
	Left	0.00	0	0	0.000	E/W 1:	0.159
	Right	0.50	1,600	325	0.203 *	E/W 2:	0.203
Westbound	Through	1.50	1,600	265	0.166		
	Left	1.00	1,600	254	0.159	V/C Ratio:	0.637
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	2.00	3,200	590	0.184	ITS:	0.000
	Left	1.00	1,600	260	0.163 *		
	Right	0.00	0	0	0.000	ICU:	0.737
Eastbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

17. Evergreen Avenue & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	23	0.000	N/S 1:	0.370 *
Southbound	Through	1.00	3,200	463	0.183	N/S 2:	0.309
	Left	0.50	1,600	100	0.063 *	E/W 1:	0.086 *
	Right	0.33	0	42	0.000	E/W 2:	0.077
Westbound	Through	0.34	1,600	39	0.073		
	Left	0.33	1,600	35	0.022 *	V/C Ratio:	0.456
	Right	0.50	0	153	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	628	0.307 *	ITS:	0.000
	Left	0.50	1,600	202	0.126		
	Right	0.33	0	84	0.000	ICU:	0.556
Eastbound	Through	0.34	1,600	12	0.064 *		
	Left	0.33	1,600	6	0.004	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	15	0.000	N/S 1:	0.411 *
Southbound	Through	1.00	3,200	743	0.322	N/S 2:	0.357
	Left	0.50	1,600	273	0.171 *	E/W 1:	0.164 *
	Right	0.33	0	32	0.000	E/W 2:	0.049
Westbound	Through	0.34	1,600	8	0.046		
	Left	0.33	1,600	34	0.021 *	V/C Ratio:	0.575
	Right	0.50	0	107	0.000	Loss Time:	0.100
Northbound	Through	1.00	3,200	605	0.240 *	ITS:	0.000
	Left	0.50	1,600	56	0.035		
	Right	0.33	0	153	0.000	ICU:	0.675
Eastbound	Through	0.34	1,600	72	0.143 *		
	Left	0.33	1,600	4	0.003	LOS:	В

^{*} Critical Movement

Intersection Capacity Utilization Analysis

18. Evergreen Avenue & Magnolia Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	36	0.000	N/S 1:	0.507 *
Southbound	Through	0.34	1,600	315	0.301	N/S 2:	0.335
	Left	0.33	1,600	130	0.081 *	E/W 1:	0.230 *
	Right	0.00	0	0	0.000	E/W 2:	0.048
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.737
	Right	0.33	0	162	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	465	0.426 *	ITS:	0.000
	Left	0.33	1,600	54	0.034		
	Right	0.33	0	24	0.000	ICU:	0.837
Eastbound	Through	0.34	1,600	267	0.230 *		
	Left	0.33	1,600	77	0.048	LOS:	D

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	77	0.000	N/S 1:	0.486 *
Southbound	Through	0.34	1,600	514	0.413	N/S 2:	0.462
	Left	0.33	1,600	69	0.043 *	E/W 1:	0.224 *
	Right	0.00	0	0	0.000	E/W 2:	0.041
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.710
	Right	0.33	0	146	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	484	0.443 *	ITS:	0.000
	Left	0.33	1,600	78	0.049		
	Right	0.33	0	25	0.000	ICU:	0.810
Eastbound	Through	0.34	1,600	268	0.224 *		
	Left	0.33	1,600	66	0.041	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

19. Evergreen Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 10%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
Right	0.00	0	0	0.000	N/S 1:	0.407 *
Through	2.00	3,200	570	0.178	N/S 2:	0.178
Left	1.00	1,600	299	0.187 *	E/W 1:	0.296 *
Right	0.00	0	0	0.000	E/W 2:	0.278
Through	0.00	0	0	0.000		
Left	0.00	0	0	0.000 *	V/C Ratio:	0.703
Right	1.00	1,600	281	0.176	Loss Time:	0.100
Through	2.00	3,200	704	0.220 *	ITS:	-0.100
Left	0.00	0	0	0.000		
Right	0.50	0	354	0.000	ICU:	0.703
Through	2.00	4,800	621	0.296 *		
Left	0.50	1,600	444	0.278	LOS:	С
	Right Through Left Right Through Left Right Through Left Right Through Left Right	Right 0.00 Through 2.00 Left 1.00 Right 0.00 Through 0.00 Right 1.00 Through 2.00 Left 0.00 Right 0.50 Through 2.00 Through 2.00	Right 0.00 0 Through 2.00 3,200 Left 1.00 1,600 Right 0.00 0 Through 0.00 0 Left 0.00 0 Right 1.00 1,600 Through 2.00 3,200 Left 0.00 0 Right 0.50 0 Through 2.00 4,800	Right 0.00 0 0 Through 2.00 3,200 570 Left 1.00 1,600 299 Right 0.00 0 0 Through 0.00 0 0 Left 0.00 0 0 Right 1.00 1,600 281 Through 2.00 3,200 704 Left 0.00 0 0 Right 0.50 0 354 Through 2.00 4,800 621	Right 0.00 0 0 0.000 Through 2.00 3,200 570 0.178 Left 1.00 1,600 299 0.187 * Right 0.00 0 0 0.000 Through 0.00 0 0 0.000 Left 0.00 0 0 0.000 * Right 1.00 1,600 281 0.176 Through 2.00 3,200 704 0.220 * Left 0.00 0 0 0.000 Right 0.50 0 354 0.000 Through 2.00 4,800 621 0.296 *	Right 0.00 0 0.000 N/S 1: Through 2.00 3,200 570 0.178 N/S 2: Left 1.00 1,600 299 0.187 * E/W 1: Right 0.00 0 0 0.000 E/W 2: Through 0.00 0 0 0.000 E/W 2: Right 1.00 1,600 281 0.176 Loss Time: Through 2.00 3,200 704 0.220 * ITS: Left 0.00 0 0 0.000 Right 0.50 0 354 0.000 ICU: Through 2.00 4,800 621 0.296 * *

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
	Right	0.00	0	0	0.000	N/S 1:	0.465 *
Southbound	Through	2.00	3,200	901	0.282	N/S 2:	0.282
	Left	1.00	1,600	365	0.228 *	E/W 1:	0.349 *
	Right	0.00	0	0	0.000	E/W 2:	0.140
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.814
	Right	1.00	1,600	316	0.198	Loss Time:	0.100
Northbound	Through	2.00	3,200	758	0.237 *	ITS:	-0.100
	Left	0.00	0	0	0.000		
	Right	0.50	0	463	0.000	ICU:	0.814
Eastbound	Through	2.00	4,800	988	0.349 *		
	Left	0.50	1,600	224	0.140	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

20. Evergreen Avenue & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.226 *
Southbound	Through	2.00	3,200	364	0.114	N/S 2:	0.114
	Left	1.00	1,600	63	0.039 *	E/W 1:	0.067 *
	Right	0.00	0	0	0.000	E/W 2:	0.059
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.293
	Right	0.50	0	182	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	416	0.187 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	35	0.000	ICU:	0.393
Eastbound	Through	2.00	4,800	192	0.067 *		
	Left	0.50	1,600	95	0.059	LOS:	Α

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.290 *
Southbound	Through	2.00	3,200	393	0.123	N/S 2:	0.123
	Left	1.00	1,600	203	0.127 *	E/W 1:	0.182 *
	Right	0.00	0	0	0.000	E/W 2:	0.028
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.472
	Right	0.50	0	182	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	339	0.163 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	0.50	0	106	0.000	ICU:	0.572
Eastbound	Through	2.00	4,800	723	0.182 *		
	Left	0.50	1,600	45	0.028	LOS:	Α

^{*} Critical Movement

Intersection Capacity Utilization Analysis

21. Evergreen Avenue & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.342 *
Southbound	Through	2.00	3,200	500	0.156	N/S 2:	0.156
	Left	1.00	1,600	347	0.217 *	E/W 1:	0.136
	Right	0.00	0	0	0.000	E/W 2:	0.199 *
Westbound	Through	0.00	0	0	0.000 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.541
	Right	1.00	1,600	112	0.070	Loss Time:	0.100
Northbound	Through	2.00	3,200	400	0.125 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	1.00	1,600	217	0.136	ICU:	0.641
Eastbound	Through	2.00	3,200	347	0.108		
	Left	1.00	1,600	319	0.199 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.00	0	0	0.000	N/S 1:	0.397 *
Southbound	Through	2.00	3,200	525	0.164	N/S 2:	0.164
	Left	1.00	1,600	347	0.217 *	E/W 1:	0.389 *
	Right	0.00	0	0	0.000	E/W 2:	0.176
Westbound	Through	0.00	0	0	0.000		
	Left	0.00	0	0	0.000 *	V/C Ratio:	0.786
	Right	1.00	1,600	124	0.078	Loss Time:	0.100
Northbound	Through	2.00	3,200	576	0.180 *	ITS:	0.000
	Left	0.00	0	0	0.000		
	Right	1.00	1,600	200	0.125	ICU:	0.886
Eastbound	Through	2.00	3,200	1,244	0.389 *		
	Left	1.00	1,600	281	0.176	LOS:	D

^{*} Critical Movement

Intersection Capacity Utilization Analysis

22. Pomona Avenue & Myrtle Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	126	0.000	N/S 1:	0.236
Southbound	Through	1.50	3,200	775	0.282 *	N/S 2:	0.308
	Left	1.00	1,600	74	0.046	E/W 1:	0.180
	Right	0.33	0	141	0.000	E/W 2:	0.243
Westbound	Through	0.34	1,600	52	0.147 *		
	Left	0.33	1,600	42	0.026	V/C Ratio:	0.551
	Right	0.50	0	21	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	588	0.190	ITS:	0.000
	Left	1.00	1,600	42	0.026 *		
	Right	0.33	0	61	0.000	ICU:	0.651
Eastbound	Through	0.34	1,600	31	0.154		
	Left	0.33	1,600	154	0.096 *	LOS:	В

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	259	0.000	N/S 1:	0.377
Southbound	Through	1.50	3,200	1,023	0.401 *	N/S 2:	0.439 *
	Left	1.00	1,600	161	0.101	E/W 1:	0.247 *
	Right	0.33	0	95	0.000	E/W 2:	0.216
Westbound	Through	0.34	1,600	40	0.115		
	Left	0.33	1,600	49	0.031 *	V/C Ratio:	0.686
	Right	0.50	0	50	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	834	0.276	ITS:	0.000
	Left	1.00	1,600	60	0.038 *		
	Right	0.33	0	86	0.000	ICU:	0.786
Eastbound	Through	0.34	1,600	97	0.216 *		
	Left	0.33	1,600	162	0.101	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

23. Duarte Road & Fifth Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	45	0.000	N/S 1:	0.102
Southbound	Through	0.34	1,600	33	0.098 *	N/S 2:	0.122 *
	Left	0.33	1,600	79	0.049	E/W 1:	0.232
	Right	0.50	0	164	0.000	E/W 2:	0.512 *
Westbound	Through	1.50	3,200	1,424	0.496 *		
	Left	1.00	1,600	6	0.004	V/C Ratio:	0.634
	Right	0.33	0	7	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	39	0.053	ITS:	0.000
	Left	0.33	1,600	39	0.024 *		
	Right	0.50	0	34	0.000	ICU:	0.734
Eastbound	Through	1.50	3,200	697	0.228		
	Left	1.00	1,600	26	0.016 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	25	0.000	N/S 1:	0.100
Southbound	Through	0.34	1,600	23	0.110 *	N/S 2:	0.121 *
	Left	0.33	1,600	128	0.080	E/W 1:	0.488 *
	Right	0.50	0	81	0.000	E/W 2:	0.312
Westbound	Through	1.50	3,200	856	0.293		
	Left	1.00	1,600	3	0.002 *	V/C Ratio:	0.609
	Right	0.33	0	10	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.020	ITS:	0.000
	Left	0.33	1,600	18	0.011 *		
	Right	0.50	0	21	0.000	ICU:	0.709
Eastbound	Through	1.50	3,200	1,533	0.486 *		
	Left	1.00	1,600	31	0.019	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

24. Duarte Road & Mayflower Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	255	0.077	N/S 1:	0.236 *
Southbound	Through	1.00	1,600	196	0.123	N/S 2:	0.187
	Left	1.00	1,600	109	0.068 *	E/W 1:	0.191
	Right	0.50	0	199	0.000	E/W 2:	0.455 *
Westbound	Through	1.50	3,200	727	0.289 *		
	Left	1.00	1,600	28	0.018	V/C Ratio:	0.691
	Right	0.50	0	40	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	499	0.168 *	ITS:	0.000
	Left	1.00	1,600	103	0.064		
	Right	0.50	0	32	0.000	ICU:	0.791
Eastbound	Through	1.50	3,200	520	0.173		
	Left	1.00	1,600	265	0.166 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	345	0.117	N/S 1:	0.207
Southbound	Through	1.00	1,600	375	0.234 *	N/S 2:	0.260
	Left	1.00	1,600	174	0.109	E/W 1:	0.317
	Right	0.50	0	144	0.000	E/W 2:	0.427
Westbound	Through	1.50	3,200	590	0.229 *		
	Left	1.00	1,600	41	0.026	V/C Ratio:	0.687
	Right	0.50	0	37	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	275	0.098	ITS:	0.000
	Left	1.00	1,600	42	0.026 *		
	Right	0.50	0	52	0.000	ICU:	0.787
Eastbound	Through	1.50	3,200	879	0.291		
	Left	1.00	1,600	316	0.198 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

25. Duarte Road & Magnolia Avenue

Overlapping Right Turn:

Through Lane Capacity: 1600 vph North/South Split Phase: Υ Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	134	0.018	N/S 1:	0.147 *
Southbound	Through	0.50	1,600	4	0.144 *	N/S 2:	0.000
	Left	0.50	1,600	227	0.142	E/W 1:	0.165
	Right	0.50	0	334	0.000	E/W 2:	0.528 *
Westbound	Through	1.50	3,200	929	0.395 *		
	Left	1.00	1,600	9	0.006	V/C Ratio:	0.675
	Right	0.33	0	1	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	1	0.003 *	ITS:	0.000
	Left	0.33	1,600	3	0.002		
	Right	0.50	0	4	0.000	ICU:	0.775
Eastbound	Through	1.50	3,200	504	0.159		
	Left	1.00	1,600	212	0.133 *	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	196	0.038	N/S 1:	0.165 *
Southbound	Through	0.50	1,600	0	0.158 *	N/S 2:	0.000
	Left	0.50	1,600	253	0.158	E/W 1:	0.321
	Right	0.50	0	324	0.000	E/W 2:	0.463 *
Westbound	Through	1.50	3,200	617	0.294 *		
	Left	1.00	1,600	2	0.001	V/C Ratio:	0.628
	Right	0.33	0	3	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	2	0.007 *	ITS:	0.000
	Left	0.33	1,600	6	0.004		
	Right	0.50	0	2	0.000	ICU:	0.728
Eastbound	Through	1.50	3,200	1,023	0.320		
	Left	1.00	1,600	271	0.169 *	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

26. Duarte Road & Peck Road

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 10% Right-Turn on Red: 50 % ITS Percentage: 0% Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	131	0.000	N/S 1:	0.386
Southbound	Through	0.34	1,600	2	0.135 *	N/S 2:	0.398 *
	Left	0.33	1,600	83	0.052	E/W 1:	0.246 *
	Right	0.50	0	12	0.000	E/W 2:	0.204
Westbound	Through	1.50	3,200	631	0.201		
	Left	1.00	1,600	20	0.013 *	V/C Ratio:	0.644
	Right	0.33	0	110	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	4	0.334	ITS:	0.000
	Left	0.33	1,600	421	0.263 *		
	Right	0.50	0	110	0.000	ICU:	0.744
Eastbound	Through	1.50	3,200	635	0.233 *		
	Left	1.00	1,600	4	0.003	LOS:	С

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.33	0	90	0.000	N/S 1:	0.224
Southbound	Through	0.34	1,600	10	0.101 *	N/S 2:	0.240 *
	Left	0.33	1,600	62	0.039	E/W 1:	0.363 *
	Right	0.50	0	125	0.000	E/W 2:	0.247
Westbound	Through	1.50	3,200	608	0.229		
	Left	1.00	1,600	29	0.018 *	V/C Ratio:	0.603
	Right	0.33	0	70	0.000	Loss Time:	0.100
Northbound	Through	0.34	1,600	3	0.185	ITS:	0.000
	Left	0.33	1,600	223	0.139 *		
	Right	0.50	0	276	0.000	ICU:	0.703
Eastbound	Through	1.50	3,200	827	0.345 *		
	Left	1.00	1,600	28	0.018	LOS:	С

^{*} Critical Movement

Intersection Capacity Utilization Analysis

27. Duarte Road & Myrtle Avenue

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 0 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 30%
ITS Percentage: 10%

WEEKDAY MORNING PEAK HOUR

Movement	Lanes	Capacity	Volume	V/C	ICU Ana	lysis
Right	0.50	0	192	0.000	N/S 1:	0.210
Through	1.50	3,200	642	0.261 *	N/S 2:	0.360 *
Left	1.00	1,600	43	0.027	E/W 1:	0.150
Right	1.00	1,600	34	0.008	E/W 2:	0.226 *
Through	2.00	3,200	327	0.102 *		
Left	1.00	1,600	64	0.040	V/C Ratio:	0.586
Right	0.50	0	61	0.000	Loss Time:	0.300
Through	1.50	3,200	525	0.183	ITS:	-0.100
Left	1.00	1,600	159	0.099 *		
Right	1.00	1,600	165	0.053	ICU:	0.786
Through	2.00	3,200	352	0.110		
Left	1.00	1,600	198	0.124 *	LOS:	С
	Right Through Left Right Through Left Right Through Left Through Left Through	Right 0.50 Through 1.50 Left 1.00 Right 1.00 Through 2.00 Left 1.00 Through 1.50 Left 1.00 Right 1.00 Through 2.00	Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200	Right 0.50 0 192 Through 1.50 3,200 642 Left 1.00 1,600 43 Right 1.00 1,600 34 Through 2.00 3,200 327 Left 1.00 1,600 64 Right 0.50 0 61 Through 1.50 3,200 525 Left 1.00 1,600 159 Right 1.00 1,600 165 Through 2.00 3,200 352	Right 0.50 0 192 0.000 Through 1.50 3,200 642 0.261 * Left 1.00 1,600 43 0.027 Right 1.00 1,600 34 0.008 Through 2.00 3,200 327 0.102 * Left 1.00 1,600 64 0.040 Right 0.50 0 61 0.000 Through 1.50 3,200 525 0.183 Left 1.00 1,600 159 0.099 * Right 1.00 1,600 165 0.053 Through 2.00 3,200 352 0.110	Right 0.50 0 192 0.000 N/S 1: Through 1.50 3,200 642 0.261 * N/S 2: Left 1.00 1,600 43 0.027 E/W 1: Right 1.00 1,600 34 0.008 E/W 2: Through 2.00 3,200 327 0.102 * Left 1.00 1,600 64 0.040 V/C Ratio: Right 0.50 0 61 0.000 Loss Time: Through 1.50 3,200 525 0.183 ITS: Left 1.00 1,600 159 0.099 * Right 1.00 1,600 165 0.053 ICU: Through 2.00 3,200 352 0.110

ough 1 eft 1 ight 1	0.50 1.50 1.00 1.00	0 3,200 1,600 1,600	293 777 53 41	0.000 0.334 * 0.033	N/S 1: N/S 2: E/W 1:	0.240 0.438 *
eft 1	1.00 1.00	1,600	53	0.033	•	0.438 *
ight 1	1.00	•			E/W 1:	0 220
J		1,600	<i>A</i> 1	0.000		0.223
			71	0.009	E/W 2:	0.261 *
ough 2	2.00	3,200	402	0.126 *		
eft 1	1.00	1,600	85	0.053	V/C Ratio:	0.699
ight (0.50	0	59	0.000	Loss Time:	0.300
ough 1	1.50	3,200	604	0.207	ITS:	-0.100
eft 1	1.00	1,600	167	0.104 *		
ight 1	1.00	1,600	348	0.165	ICU:	0.899
ough 2	2.00	3,200	564	0.176		
	1.00	1,600	216	0.135 *	LOS:	D
ľ	ough :	ough 2.00	ough 2.00 3,200	ough 2.00 3,200 564	ough 2.00 3,200 564 0.176	ough 2.00 3,200 564 0.176

^{*} Critical Movement

Intersection Capacity Utilization Analysis

Ν

Ν

30%

0%

28. Duarte Road & California Avenue

Through Lane Capacity: 1600 vph North/South Split Phase:
Left-Turn Lane Capacity: 1600 vph East/West Split Phase:
Double-Left Penalty: 0 % Loss Time % per Cycle:
Right-Turn on Red: 50 % ITS Percentage:

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	0.50	0	90	0.000	N/S 1:	0.184 *
Southbound	Through	1.50	3,200	180	0.084	N/S 2:	0.133
	Left	1.00	1,600	34	0.021 *	E/W 1:	0.218
	Right	0.50	0	43	0.000	E/W 2:	0.291 *
Westbound	Through	0.50	1,600	282	0.203 *		
	Left	1.00	1,600	46	0.029	V/C Ratio:	0.475
	Right	0.50	0	66	0.000	Loss Time:	0.300
Northbound	Through	1.50	3,200	456	0.163 *	ITS:	0.000
	Left	1.00	1,600	79	0.049		
	Right	0.50	0	29	0.000	ICU:	0.775
Eastbound	Through	0.50	1,600	274	0.189		
	Left	1.00	1,600	140	0.088 *	LOS:	С

Right Through Left	0.50 1.50	0 3,200	52	0.000	N/S 1:	0.217 *
U		3,200				
Left			343	0.123	N/S 2:	0.152
	1.00	1,600	90	0.056 *	E/W 1:	0.242
Right	0.50	0	45	0.000	E/W 2:	0.305 *
Through	0.50	1,600	308	0.221 *		
Left	1.00	1,600	65	0.041	V/C Ratio:	0.522
Right	0.50	0	136	0.000	Loss Time:	0.300
Through	1.50	3,200	379	0.161 *	ITS:	0.000
Left	1.00	1,600	46	0.029		
Right	0.50	0	28	0.000	ICU:	0.822
Through	0.50	1,600	294	0.201		
Left	1.00	1,600	134	0.084 *	LOS:	D
	Through Left Right Through Left Right Through	Through 0.50 Left 1.00 Right 0.50 Through 1.50 Left 1.00 Right 0.50 Through 0.50	Through 0.50 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200 Left 1.00 1,600 Right 0.50 0 Through 0.50 1,600	Through 0.50 1,600 308 Left 1.00 1,600 65 Right 0.50 0 136 Through 1.50 3,200 379 Left 1.00 1,600 46 Right 0.50 0 28 Through 0.50 1,600 294	Through 0.50 1,600 308 0.221 * Left 1.00 1,600 65 0.041 Right 0.50 0 136 0.000 Through 1.50 3,200 379 0.161 * Left 1.00 1,600 46 0.029 Right 0.50 0 28 0.000 Through 0.50 1,600 294 0.201	Through 0.50 1,600 308 0.221 * Left 1.00 1,600 65 0.041 V/C Ratio: Right 0.50 0 136 0.000 Loss Time: Through 1.50 3,200 379 0.161 * ITS: Left 1.00 1,600 46 0.029 Right 0.50 0 28 0.000 ICU: Through 0.50 1,600 294 0.201

^{*} Critical Movement

Intersection Capacity Utilization Analysis

29. Duarte Road & Mountain Avenue

Through Lane Capacity: 1600 vph North/South Split Phase: Ν Left-Turn Lane Capacity: 1600 vph East/West Split Phase: Ν Double-Left Penalty: 0 % Loss Time % per Cycle: 30% Right-Turn on Red: 50 % ITS Percentage: 0%

Overlapping Right Turn:

WEEKDAY MORNING PEAK HOUR

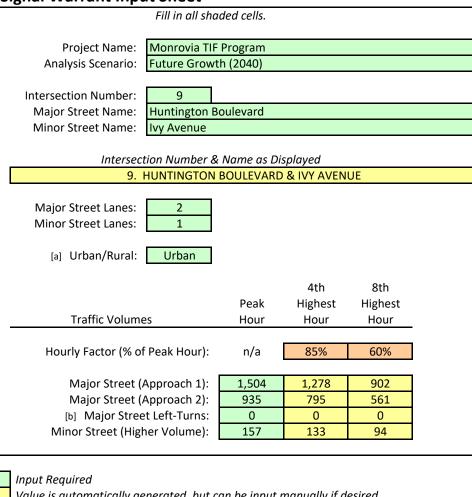
Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
Right	1.00	1,600	155	0.047	N/S 1:	0.183 *
Through	1.00	1,600	168	0.105	N/S 2:	0.123
Left	1.00	1,600	89	0.056 *	E/W 1:	0.142
Right	1.00	1,600	157	0.070	E/W 2:	0.183 *
Through	2.00	3,200	261	0.082 *		
Left	1.00	1,600	81	0.051	V/C Ratio:	0.366
Right	1.00	1,600	142	0.063	Loss Time:	0.300
Through	1.00	1,600	203	0.127 *	ITS:	0.000
Left	1.00	1,600	29	0.018		
Right	0.50	0	29	0.000	ICU:	0.666
Through	1.50	3,200	263	0.091		
Left	1.00	1,600	161	0.101 *	LOS:	В
	Right Through Left Right Through Left Right Through Left Through Left Through	Right 1.00 Through 1.00 Left 1.00 Right 1.00 Through 2.00 Left 1.00 Through 1.00 Left 1.00 Right 0.50 Through 1.50	Right 1.00 1,600 Through 1.00 1,600 Left 1.00 1,600 Right 1.00 1,600 Through 2.00 3,200 Left 1.00 1,600 Right 1.00 1,600 Left 1.00 1,600 Right 0.50 0 Through 1.50 3,200	Right 1.00 1,600 155 Through 1.00 1,600 168 Left 1.00 1,600 89 Right 1.00 1,600 157 Through 2.00 3,200 261 Left 1.00 1,600 81 Right 1.00 1,600 142 Through 1.00 1,600 203 Left 1.00 1,600 29 Right 0.50 0 29 Through 1.50 3,200 263	Right 1.00 1,600 155 0.047 Through 1.00 1,600 168 0.105 Left 1.00 1,600 89 0.056 * Right 1.00 1,600 157 0.070 Through 2.00 3,200 261 0.082 * Left 1.00 1,600 81 0.051 Right 1.00 1,600 142 0.063 Through 1.00 1,600 203 0.127 * Left 1.00 1,600 29 0.018 Right 0.50 0 29 0.000 Through 1.50 3,200 263 0.091	Right 1.00 1,600 155 0.047 N/S 1: Through 1.00 1,600 168 0.105 N/S 2: Left 1.00 1,600 89 0.056 * E/W 1: Right 1.00 1,600 157 0.070 E/W 2: Through 2.00 3,200 261 0.082 * E/W 2: Left 1.00 1,600 81 0.051 V/C Ratio: Right 1.00 1,600 203 0.127 * ITS: Left 1.00 1,600 29 0.018 Right 0.50 0 29 0.000 ICU: Through 1.50 3,200 263 0.091

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Anal	ysis
	Right	1.00	1,600	213	0.072	N/S 1:	0.176
Southbound	Through	1.00	1,600	324	0.203 *	N/S 2:	0.219 '
	Left	1.00	1,600	110	0.069	E/W 1:	0.237 3
	Right	1.00	1,600	180	0.078	E/W 2:	0.205
Westbound	Through	2.00	3,200	267	0.083		
	Left	1.00	1,600	51	0.032 *	V/C Ratio:	0.456
	Right	1.00	1,600	107	0.051	Loss Time:	0.300
Northbound	Through	1.00	1,600	171	0.107	ITS:	0.000
	Left	1.00	1,600	26	0.016 *		
	Right	0.50	0	111	0.000	ICU:	0.756
Eastbound	Through	1.50	3,200	544	0.205 *		
	Left	1.00	1,600	195	0.122	LOS:	С

^{*} Critical Movement

Appendix C Signal Warrant Worksheets

Traffic Signal Warrant Input Sheet



Value is automatically generated, but can be input manually if desired. Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street leftturn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Monrovia TIF Program

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

9. HUNTINGTON BOULEVARD & IVY AVENUE

Major Street Name: Huntington Boulevard

Minor Street Name: Ivy Avenue Major Street (Approach 1): 902

Major Street (Approach 2): 561

Vehicles per Hour (8th Highest Hour)

Major Street Lanes: 2 [a] Major Street Left-Turns: 0
Minor Street Lanes: 1 Minor Street (Higher Volume): 94

[b] Urban/Rural: Urban

CONDITION A - MINIMUM VEHICULAR VOLUME

Number		Vehicles per hour		Vehicles per hour on			
	of lanes for		on major street		higher-volume minor		Vehicles per Hour
moving traffic		(total of both		street approach		Major: 1,463	
on each approach		approaches)		(one direction only)		Minor: 94	
	Major	Minor	100%	80%	100%	80%	
	1	1	500	400	150	120	
\rightarrow	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	NO
	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Number		Vehicles per hour		Vehicles per hour on		
	of lanes for		on major street		higher-volume minor		Vehicles per Hour
	moving traffic		(total of both		street approach		Major: 1,463
	on each approach		approaches)		(one direction only)		Minor: 94
	Major	Minor	100%	80%	100%	80%	
	1	1	750	600	75	60	
\rightarrow	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	YES
	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? NO

Condition B 80% satisfied? YES 80% Combination Satisfied? **NO**

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Monrovia TIF Program

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

9. HUNTINGTON BOULEVARD & IVY AVENUE

Major Street Name: Huntington Boulevard

Minor Street Name: Ivy Avenue

Major Street (Approach 1): 1,278

Major Street (Approach 2): 795

Major Street Lanes: 2

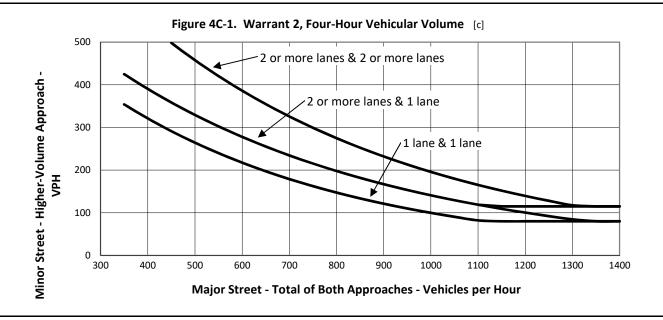
Minor Street Lanes: 1

Minor Street (Higher Volume): 133

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

Major Street (Approach 1):	1,278	Minimum Major Street Volume:	390
Major Street (Approach 2):	795	Satisfied?	YES
Total Major Street Volume:	2,073		
		Minimum Minor Street Volume:	80
Major Street Left Turns:	0	Satisfied?	YES
Minor Street (Higher Volume):	133		
Total Minor Street Volume:	133	Warrant 2 Satisfied?	YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Monrovia TIF Program

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

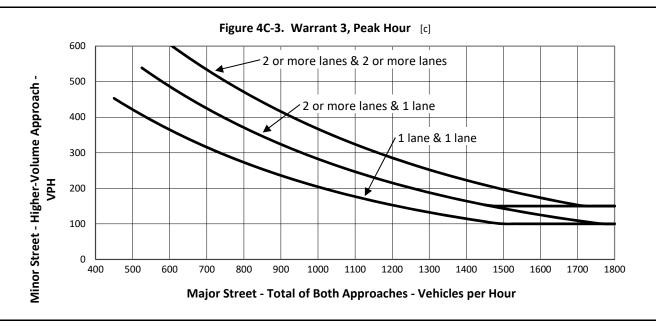
9. HUNTINGTON BOULEVARD & IVY AVENUE

Major Street Name:Huntington BoulevardVehicles per Hour (Peak Hour)Minor Street Name:Ivy AvenueMajor Street (Approach 1):1,504Major Street (Approach 2):935Major Street Lanes:2[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):157

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	1,504	Minimum Major Street Volume:	510
Major Street (Approach 2):	935	Satisfied?	YES
Total Major Street Volume:	2,439		
		Minimum Minor Street Volume:	100
Major Street Left Turns:	0	Satisfied?	YES
Minor Street (Higher Volume):	157		
Total Minor Street Volume:	157	Warrant 3 Satisfied?	YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

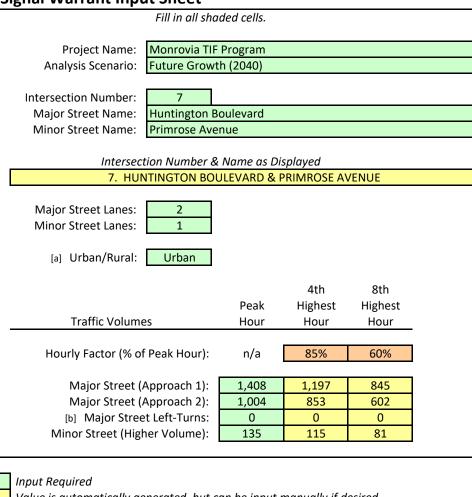
Intersection Number: 9

Major Street Name: Huntington Boulevard

Minor Street Name: Ivy Avenue

MUTCD Warrant	Satisfied?
Warrant 1 - Eight-Hour Vehicular Volume	
1A - Minimum Vehicular Volume	NO
1B - Interruption of Continuous Traffic	YES
1C - 80% Combination	NO
Warrant 2 - Four-Hour Vehicular Volume	YES
Warrant 3 - Peak Hour	YES
Any Warrant Satisfied?	YES

Traffic Signal Warrant Input Sheet



Input Required

Value is automatically generated, but can be input manually if desired.

Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

7. HUNTINGTON BOULEVARD & PRIMROSE AVENUE

Major Street Name: Huntington Boulevard Vehicles per Hour (8th Highest Hour)
Minor Street Name: Primrose Avenue Major Street (Approach 1): 845

Major Street (Approach 2): 602
Major Street Lanes: 2 [a] Major Street Left-Turns: 0
Minor Street Lanes: 1 Minor Street (Higher Volume): 81

[b] Urban/Rural: Urban

CONDITION A - MINIMUM VEHICULAR VOLUME

	Num	nber	Vehicles	per hour	Vehicles po	er hour on	
	of lanes for on major street higher-volume minor moving traffic (total of both street approach		Vehicles per Hour				
			(total of both		street a	oproach	Major: 1,447
	on each a	approach	approa	aches)	(one direction only)		Minor: 81
	Major	Minor	100%	80%	100%	80%	
	1	1	500	400	150	120	
\rightarrow	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	NO
	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on majo	on major street higher-volume minor V		Vehicles per Hour	
	moving	g traffic	(total o	of both	street approach		Major: 1,447
	on each	approach	appro	aches)	(one direc	tion only)	Minor: 81
	Major	Minor	100%	80%	100%	80%	
	1	1	750	600	75	60	
\rightarrow	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	YES
	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? NO

Condition B 80% satisfied? YES 80% Combination Satisfied? **NO**

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

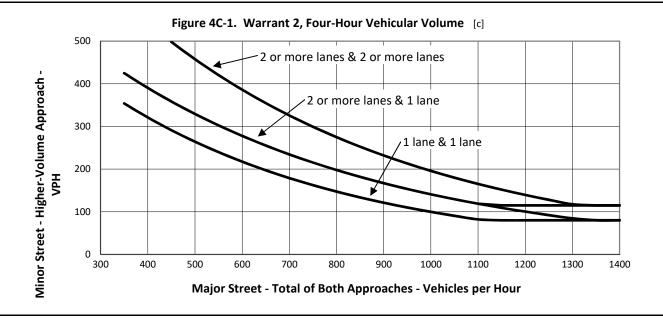
7. HUNTINGTON BOULEVARD & PRIMROSE AVENUE

Major Street Name:Huntington BoulevardVehicles per Hour (4th Highest Hour)Minor Street Name:Primrose AvenueMajor Street (Approach 1):1,197Major Street (Approach 2):853Major Street Lanes:2[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):115

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

ne: 390	Minimum Major Street Volume:	1,197	Major Street (Approach 1):
ed? YES	Satisfied?	853	Major Street (Approach 2):
		2,050	Total Major Street Volume:
ne: 80	Minimum Minor Street Volume:		
ed? YES	Satisfied?	0	Major Street Left Turns:
		115	Minor Street (Higher Volume):
ed? YES	Warrant 2 Satisfied?	115	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

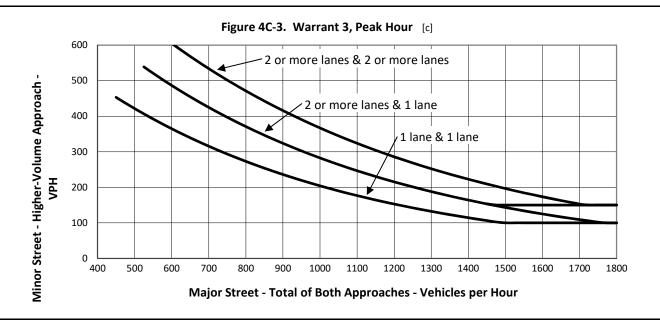
7. HUNTINGTON BOULEVARD & PRIMROSE AVENUE

Major Street Name:Huntington BoulevardVehicles per Hour (Peak Hour)Minor Street Name:Primrose AvenueMajor Street (Approach 1):1,408Major Street (Approach 2):1,004Major Street Lanes:2[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):135

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

510	Minimum Major Street Volume:	1,408	Major Street (Approach 1):
YES	Satisfied?	1,004	Major Street (Approach 2):
		2,412	Total Major Street Volume:
100	Minimum Minor Street Volume:		
YES	Satisfied?	0	Major Street Left Turns:
	_	135	Minor Street (Higher Volume):
YES	Warrant 3 Satisfied?	135	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

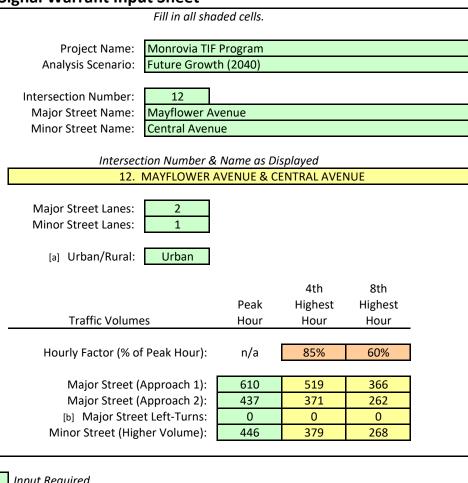
Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

Intersection Number: 7

Major Street Name: Huntington Boulevard
Minor Street Name: Primrose Avenue

MUTCD Warrant	Satisfied?
Warrant 1 - Eight-Hour Vehicular Volume 1A - Minimum Vehicular Volume 1B - Interruption of Continuous Traffic 1C - 80% Combination	NO YES NO
Warrant 2 - Four-Hour Vehicular Volume	YES
Warrant 3 - Peak Hour	YES
Any Warrant Satisfied?	YES

Traffic Signal Warrant Input Sheet



Input Required

Value is automatically generated, but can be input manually if desired. Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

12. MAYFLOWER AVENUE & CENTRAL AVENUE

Major Street Name: Mayflower Avenue
Minor Street Name: Central Avenue

Major Street Lanes: 2 Minor Street Lanes: 1

[b] Urban/Rural: Urban

Vehicles per Hour (8th Highest Hour)

Major Street (Approach 1): 366
Major Street (Approach 2): 262
[a] Major Street Left-Turns: 0
Minor Street (Higher Volume): 268

CONDITION A - MINIMUM VEHICULAR VOLUME

	Nun	nber	Vehicles	•	Vehicles po		
	of lan	es for	on majo	r street	higher-volu	ume minor	Vehicles per Hour
	moving	moving traffic		(total of both		oproach	Major: 628
	on each	approach	appro	iches) (one direction only)		Minor: 268	
	Major	Minor	100%	80%	100%	80%	
	1	1	500	400	150	120	
\rightarrow	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	YES
	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Nun	nber	Vehicles	per hour	Vehicles po	er hour on	
	of lanes for on major street higher-volume m		najor street higher-volume minor		street higher-volume minor Vehicle		
	movin	g traffic	traffic (total of both street approach		Major: 628		
	on each	approach	appro	aches)	(one direc	tion only)	Minor: 268
	Major	Minor	100%	80%	100%	80%	
	1	1	750	600	75	60	
\rightarrow	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	NO
	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? YES

Condition B 80% satisfied? NO 80% Combination Satisfied? **NO**

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

12. MAYFLOWER AVENUE & CENTRAL AVENUE

Major Street Name: Mayflower Avenue Vehicles per Hour (4th Highest Hour)

Minor Street Name: Central Avenue Major Street (Approach 1): 519

Major Street (Approach 2): 371

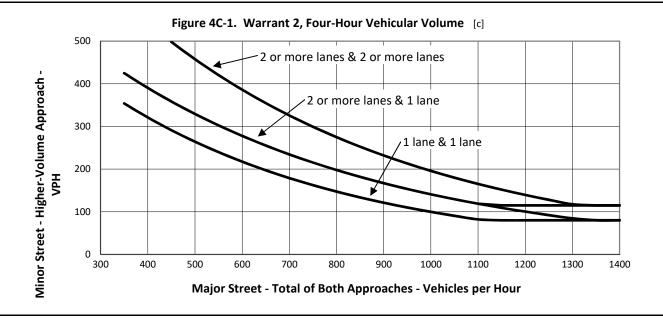
Major Street Lanes: 2 [a] Major Street Left-Turns: 0

Major Street Lanes: 2 [a] Major Street Left-Turns: 0
Minor Street Lanes: 1 Minor Street (Higher Volume): 379

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

390	Minimum Major Street Volume:	519	Major Street (Approach 1):
YES	Satisfied?	371	Major Street (Approach 2):
		890	Total Major Street Volume:
170	Minimum Minor Street Volume:		
YES	Satisfied?	0	Major Street Left Turns:
		379	Minor Street (Higher Volume):
YES	Warrant 2 Satisfied?	379	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

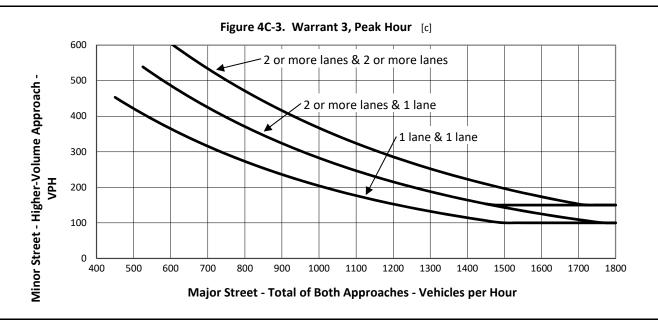
12. MAYFLOWER AVENUE & CENTRAL AVENUE

Major Street Name:Mayflower AvenueVehicles per Hour (Peak Hour)Minor Street Name:Central AvenueMajor Street (Approach 1):610Major Street (Approach 2):437Major Street Lanes:2[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):446

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	610	Minimum Major Street Volume:	510
Major Street (Approach 2):	437	Satisfied?	YES
Total Major Street Volume:	1,047		
		Minimum Minor Street Volume:	265
Major Street Left Turns:	0	Satisfied?	YES
Minor Street (Higher Volume):	446		
Total Minor Street Volume:	446	Warrant 3 Satisfied?	YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

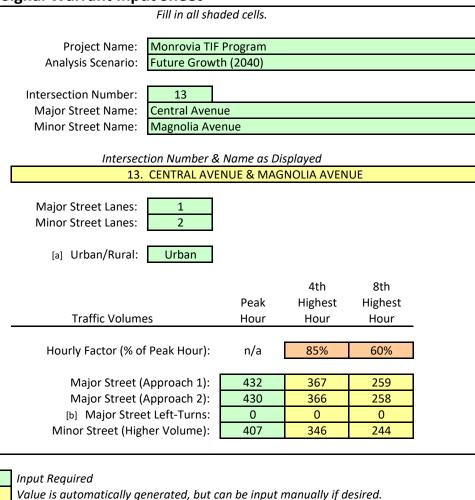
Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

Intersection Number: 12

Major Street Name: Mayflower Avenue
Minor Street Name: Central Avenue

MUTCD Warrant	Satisfied?
Warrant 1 - Eight-Hour Vehicular Volume	
1A - Minimum Vehicular Volume	YES
1B - Interruption of Continuous Traffic	NO
1C - 80% Combination	NO
Warrant 2 - Four-Hour Vehicular Volume	YES
Warrant 3 - Peak Hour	YES
Any Warrant Satisfied?	YES

Traffic Signal Warrant Input Sheet



Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street leftturn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

13. CENTRAL AVENUE & MAGNOLIA AVENUE

Major Street Name: Central Avenue Vehicles per Hour (8th Highest Hour)
Minor Street Name: Magnolia Avenue Major Street (Approach 1): 259

Major Street (Approach 2): 258
Major Street Lanes: 1 [a] Major Street Left-Turns: 0
Minor Street Lanes: 2 Minor Street (Higher Volume): 244

[b] Urban/Rural: Urban

CONDITION A - MINIMUM VEHICULAR VOLUME

	Nun	nber	Vehicles	per hour	Vehicles po	er hour on	
	of lan	es for	on majo	r street	higher-volu	ume minor	Vehicles per Hour
	moving	g traffic	(total o	of both	street a	pproach	Major: 517
	on each	approach	appro	aches)	(one direc	tion only)	Minor: 244
	Major	Minor	100%	80%	100%	80%	
	1	1	500	400	150	120	
	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	YES
\rightarrow	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on major street		higher-volu	ume minor	Vehicles per Hour
	movin	g traffic	(total of both		street approach		Major: 517
	on each approach		approaches)		(one direction only)		Minor: 244
	Major	Minor	100%	80%	100%	80%	
	1	1	750	600	75	60	
	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	NO
\rightarrow	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? YES

Condition B 80% satisfied? NO 80% Combination Satisfied? **NO**

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

13. CENTRAL AVENUE & MAGNOLIA AVENUE

Major Street Name: Central Avenue

Vehicles per Hour (4th Highest Hour)

Minor Street Name: Magnolia Avenue

Major Street (Approach 1): 367

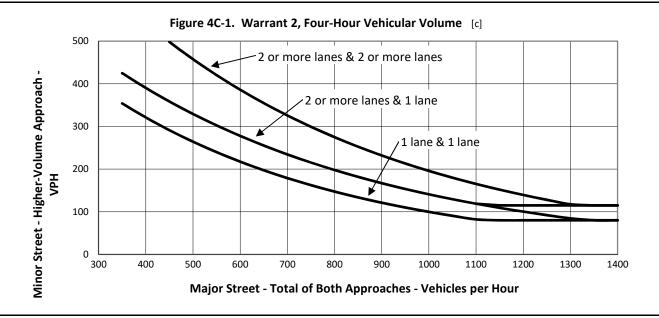
Major Street (Approach 2): 366

Major Street Lanes: 1 [a] Major Street Left-Turns: 0
Minor Street Lanes: 2 Minor Street (Higher Volume): 346

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

lajor Street Volume: 390	367	Major Street (Approach 1):
Satisfied? YES	366	Major Street (Approach 2):
	733	Total Major Street Volume:
inor Street Volume: 222		
Satisfied? YES	0	Major Street Left Turns:
	346	Minor Street (Higher Volume):
Warrant 2 Satisfied? YES	346	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

13. CENTRAL AVENUE & MAGNOLIA AVENUE

Major Street Name: Central Avenue Vehicles per Hour (Peak Hour)

Minor Street Name: Magnolia Avenue Major Street (Approach 1): 432

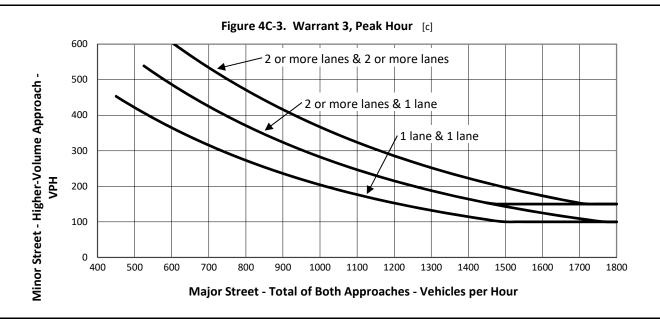
Major Street Lanes: 1 [a] Major Street Left-Turns: 0

Minor Street Lanes: 2 Minor Street (Higher Volume): 407

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Minimum Major Street Volume: 510	432	Major Street (Approach 1):
Satisfied? YES	430	Major Street (Approach 2):
	862	Total Major Street Volume:
Minimum Minor Street Volume: 341		
Satisfied? YES	0	Major Street Left Turns:
	407	Minor Street (Higher Volume):
Warrant 3 Satisfied? YES	407	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

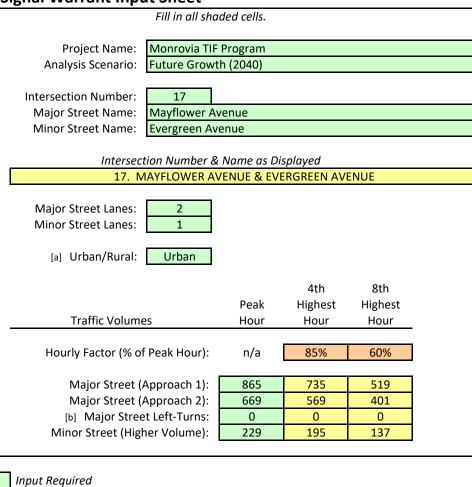
Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

Intersection Number: 13

Major Street Name: Central Avenue
Minor Street Name: Magnolia Avenue

MUTCD Warrant		Satisfied?	
1A - Minimum V	Hour Vehicular Volume Jehicular Volume n of Continuous Traffic	YES NO NO	
Warrant 2 - Four-h	Hour Vehicular Volume	YES	
Warrant 3 - Peak F		YES	

Traffic Signal Warrant Input Sheet



Value is automatically generated, but can be input manually if desired. Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street leftturn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

17. MAYFLOWER AVENUE & EVERGREEN AVENUE

Major Street Name: Mayflower Avenue Vehicles per Hour (8th Highest Hour)
Minor Street Name: Evergreen Avenue Major Street (Approach 1): 519

Major Street (Approach 2): 401
Major Street Lanes: 2 [a] Major Street Left-Turns: 0
Minor Street Lanes: 1 Minor Street (Higher Volume): 137

[b] Urban/Rural: Urban

CONDITION A - MINIMUM VEHICULAR VOLUME

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on major street		higher-volu	ume minor	Vehicles per Hour
	moving traffic		(total of both		street approach		Major: 920
	on each	approach	appro	aches)	(one direc	tion only)	Minor: 137
	Major	Minor	100%	80%	100%	80%	
	1	1	500	400	150	120	
\rightarrow	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	NO
	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on major street (total of both		higher-volu	ume minor	Vehicles per Hour
	moving	g traffic			street approach		Major: 920
on each approach		approaches)		(one direction only)		Minor: 137	
	Major	Minor	100%	80%	100%	80%	
	1	1	750	600	75	60	
\rightarrow	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	YES
	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? YES

Condition B 80% satisfied? YES 80% Combination Satisfied? YES

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

17. MAYFLOWER AVENUE & EVERGREEN AVENUE

Major Street Name: Mayflower Avenue Vehicles per Hour (4th Highest Hour)

Minor Street Name: Evergreen Avenue Major Street (Approach 1): 735

Major Street (Approach 2): 569

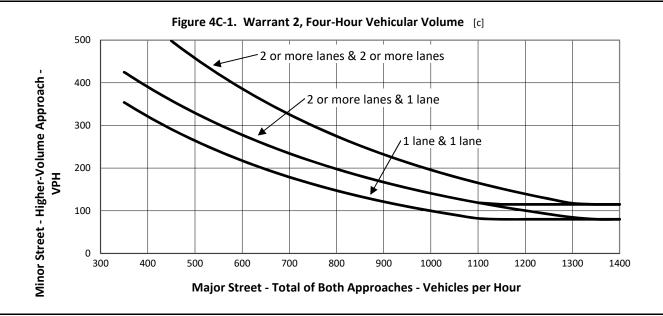
Major Street Lanes: 2 [a] Major Street Left-Turns: 0

Minor Street Lanes: 1 Minor Street (Higher Volume): 195

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

Major Street (Approach 1): 735 Minimum Major Street Volume: 390 Major Street (Approach 2): 569 Satisfied? YES Total Major Street Volume: 1,304 Minimum Minor Street Volume: 84 Satisfied? Major Street Left Turns: 0 YES Minor Street (Higher Volume): 195 Total Minor Street Volume: 195 Warrant 2 Satisfied? YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

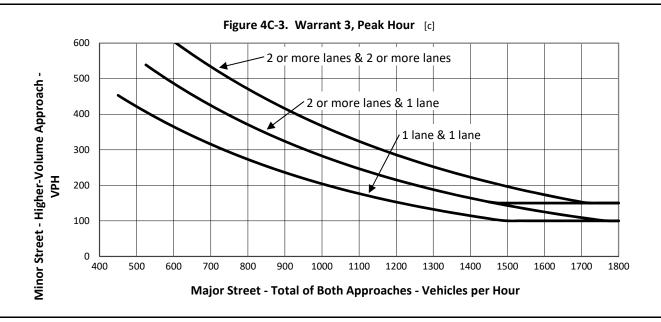
17. MAYFLOWER AVENUE & EVERGREEN AVENUE

Major Street Name:Mayflower AvenueVehicles per Hour (Peak Hour)Minor Street Name:Evergreen AvenueMajor Street (Approach 1):865Major Street (Approach 2):669Major Street Lanes:2[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):229

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	865	Minimum Major Street Volume:	510
Major Street (Approach 2):	669	Satisfied?	YES
Total Major Street Volume:	1,534	_	
		Minimum Minor Street Volume:	137
Major Street Left Turns:	0	Satisfied?	YES
Minor Street (Higher Volume):	229		
Total Minor Street Volume:	229	Warrant 3 Satisfied?	YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

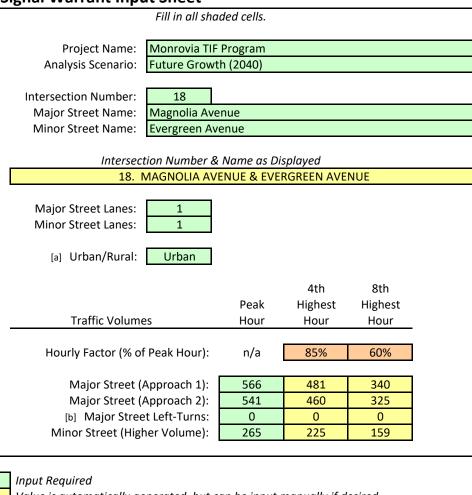
Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

Intersection Number: 17

Major Street Name: **Mayflower Avenue**Minor Street Name: **Evergreen Avenue**

MUTCD Warrant	Satisfied?
Warrant 1 - Eight-Hour Vehicular Volume 1A - Minimum Vehicular Volume 1B - Interruption of Continuous Traffic 1C - 80% Combination	NO YES YES
Warrant 2 - Four-Hour Vehicular Volume	YES
Warrant 3 - Peak Hour	YES
Any Warrant Satisfied?	YES

Traffic Signal Warrant Input Sheet



Value is automatically generated, but can be input manually if desired. Default values. Can be altered if desired.

At an intersection with a high-volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher volume of the major-street left-turn volumes plus the higher volume minor street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street leftturn volume as "major street" volume.

Source: Section 4C of CA MUTCD

[[]a] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]b] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

Traffic Signal Warrant Analysis Warrant 1, Eight-Hour Vehicular Volume

18. MAGNOLIA AVENUE & EVERGREEN AVENUE

Major Street Name: Magnolia Avenue Vehicles per Hour (8th Highest Hour)
Minor Street Name: Evergreen Avenue Major Street (Approach 1): 340

Major Street (Approach 2): 325
Major Street Lanes: 1 [a] Major Street Left-Turns: 0
Minor Street Lanes: 1 Minor Street (Higher Volume): 159

[b] Urban/Rural: Urban

CONDITION A - MINIMUM VEHICULAR VOLUME

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on major street (total of both		higher-volu	ume minor	Vehicles per Hour
	moving	g traffic			street approach		Major: 665
on each approach		approach	approaches)		(one direction only)		Minor: 159
	Major	Minor	100%	80%	100%	80%	
\rightarrow	1	1	500	400	150	120	
	2 +	1	600	480	150	120	Condition A Satisfied?
	2 +	2 +	600	480	200	160	YES
	1	2 +	500	400	200	160	

CONDITION B - INTERRUPTION OF CONTINUOUS TRAFFIC

	Number		Vehicles per hour		Vehicles per hour on		
	of lan	es for	on major street (total of both		higher-volu	ume minor	Vehicles per Hour
	moving	g traffic			street approach		Major: 665
on each approach		approaches)		(one direction only)		Minor: 159	
	Major	Minor	100%	80%	100%	80%	
\rightarrow	1	1	750	600	75	60	
	2 +	1	900	720	75	60	Condition B Satisfied?
	2 +	2 +	900	720	100	80	NO
	1	2 +	750	600	100	80	

80% COMBINATION - BOTH CONDITION A AND CONDITION B 80% SATISFIED

Condition A 80% satisfied? YES

Condition B 80% satisfied? YES 80% Combination Satisfied? YES

[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

Traffic Signal Warrant Analysis Warrant 2, Four-Hour Vehicular Volume

18. MAGNOLIA AVENUE & EVERGREEN AVENUE

Major Street Name: Magnolia Avenue Vehicles per Hour (4th Highest Hour)

Minor Street Name: Evergreen Avenue Major Street (Approach 1): 481

Major Street (Approach 2): 460

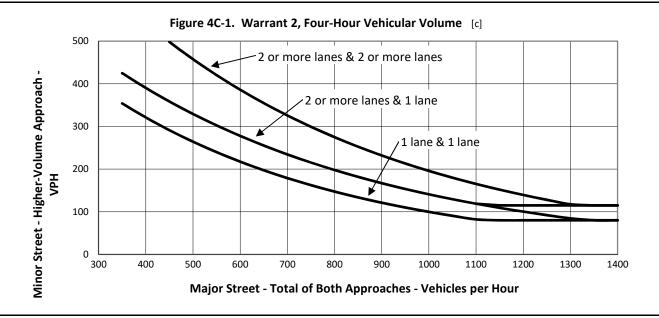
Major Street Lanes: 1 [a] Major Street Left-Turns: 0

Minor Street Lanes: 1 Minor Street (Higher Volume): 225

[b] Urban/Rural: Urban

Vehicles per Hour (4th Highest Hour)

380	Minimum Major Street Volume:	481	Major Street (Approach 1):
YES	Satisfied?	460	Major Street (Approach 2):
		941	Total Major Street Volume:
112	Minimum Minor Street Volume:		
YES	Satisfied?	0	Major Street Left Turns:
		225	Minor Street (Higher Volume):
YES	Warrant 2 Satisfied?	225	Total Minor Street Volume:



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Traffic Signal Warrant Analysis Warrant 3, Peak Hour

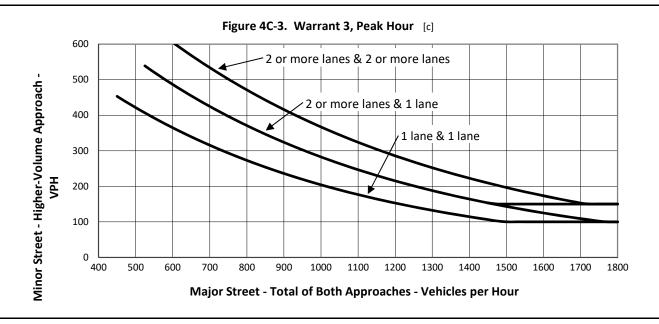
18. MAGNOLIA AVENUE & EVERGREEN AVENUE

Major Street Name:Magnolia AvenueVehicles per Hour (Peak Hour)Minor Street Name:Evergreen AvenueMajor Street (Approach 1):566Major Street (Approach 2):541Major Street Lanes:1[a] Major Street Left-Turns:0Minor Street Lanes:1Minor Street (Higher Volume):265

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	566	Minimum Major Street Volume:	450
Major Street (Approach 2):	541	Satisfied?	YES
Total Major Street Volume:	1,107	_	
		Minimum Minor Street Volume:	175
Major Street Left Turns:	0	Satisfied?	YES
Minor Street (Higher Volume):	265		
Total Minor Street Volume:	265	Warrant 3 Satisfied?	YES



[[]a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[[]b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[[]c] From California Manual on Uniform Traffic Control Devices, 2014 Edition; Caltrans.

Project Name: Monrovia TIF Program
Analysis Scenario: Future Growth (2040)

Intersection Number: 18

Major Street Name: Magnolia Avenue
Minor Street Name: Evergreen Avenue

MUTCD Warrant	Satisfied?
Warrant 1 - Eight-Hour Vehicular Volume 1A - Minimum Vehicular Volume 1B - Interruption of Continuous Traffic 1C - 80% Combination	YES NO YES
Warrant 2 - Four-Hour Vehicular Volume	YES
Warrant 3 - Peak Hour	YES
Any Warrant Satisfied?	YES